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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, INCORPORATED.

VOL. XVI.

CHICAGO, ILLINOIS, JANUARY 15, 1898.

No. 7.

{ ONE DOLLAR PER ANNUM.
SINGLE COPY, TEN CENTS.

Excelsior Grain-Cleaning Machinery

CONSISTING OF THE

EXCELSIOR Dustless Warehouse and Elevator Separator,

EXCELSIOR Oat Clipper, EXCELSIOR Separator and Grader,

EXCELSIOR "Combined Grain Machine."

ALSO

PEASE DUSTLESS SEPARATORS and WAREHOUSE FANNING MILLS,
POWER CAR PULLERS, GASOLINE ENGINES, STEAM ENGINES, HORSE POWERS
POWER TRANSMISSION MACHINERY,
GENERAL MILL AND ELEVATOR SUPPLIES.

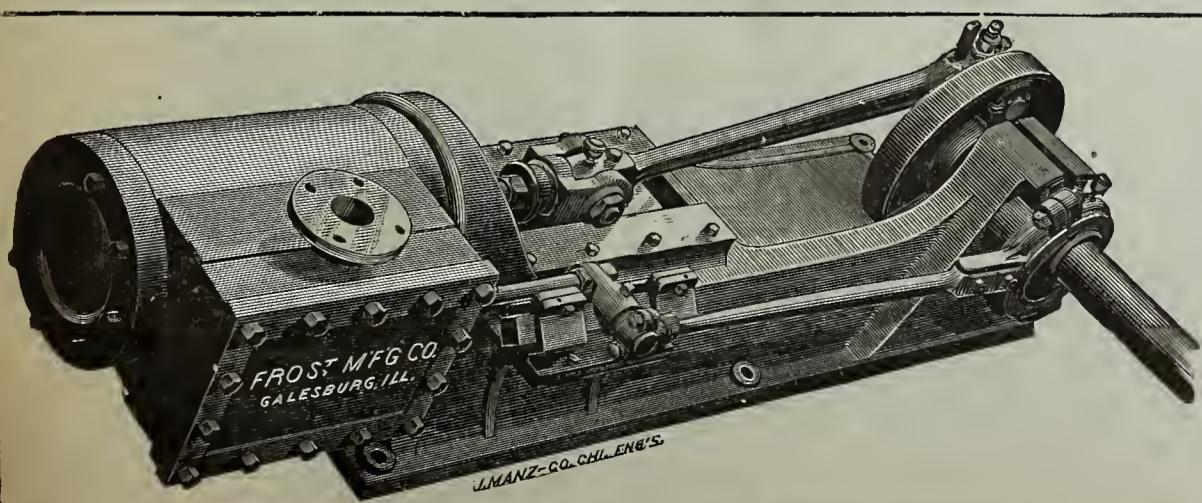
E. H. PEASE MFG. CO., RACINE, WISCONSIN.

GALDWELL
CONVEYOR
HORSE POWERS
WIRE ROPE
BELT TIGHTENERS



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THORNBURGH=CREEL CO.,
245-247 S. Jefferson St.,
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FOR PRICES AND DISCOUNTS
ON
Elevator Machinery
AND SUPPLIES
OF
Every Description,
EITHER STEAM OR HORSE-POWER,
ADDRESS
THE FROST MFG. CO.,
GALESBURG, ILL.

THE PAIN-E-ELLIS GRAIN DRIER

Several Patents Pending. \$50 Reward for First Notice of Infringement.

NOTE THESE RESULTS:

No grade corn containing .07 $\frac{1}{2}$ per ct. excess dampness dried and ventilated in 55 minutes. | No grade wheat containing .07 $\frac{1}{2}$ per ct. excess dampness dried and ventilated in 60 minutes.

A GRAIN DRIER THAT WILL DRY.

OUR apparatus consists of a drying box or bin with alternate grain and air spaces arranged perpendicularly, and a steam coil and fan for driving hot and then cold air through the grain. Must and other odors are almost entirely eliminated by this process. The drier as well as the fan and steam coil are self-contained so that the entire apparatus can easily be set up and connected with a steam plant. We are prepared to furnish driers of 50, 100 and 200 bushels' capacity, and as they can, as a rule, be filled and emptied hourly, their capacity ranges from 1,200 to 4,800 bushels of dry grain in twenty-four hours. Larger driers will be constructed when required. The steam power required is about ten horse to every hundred bushels' capacity.

We will sell the apparatus at the cost of construction and charge a royalty for its operation; or will retain ownership and charge an increased royalty.

Every country elevator should be equipped with one of these driers so that grain may be sent to market in safe and salable condition.

For terms and further information write

PAIN-E-ELLIS GRAIN DRIER COMPANY,

28 Chamber of Commerce, Milwaukee, Wis.

Gold Dollars



At FIFTY CENTS apiece are CHEAP, but they do not represent a better investment than we offer the "elevator and grain trade" in our

Controllable Wagon Dump.

WINCHESTER, ILL., February 4, 1896.

MESSRS. SAVAGE & LOVE CO., Rockford, Ill.

GENTLEMEN:—Your favor of the 28th ult. received and noted. Last July I put one of your Controllable Wagon Dumps in a Fairbanks, Morse & Co.'s 22-ft. scale, and it has given me entire satisfaction in every respect. In this locality the bulk of grain is as yet handled in sacks, and by tipping the Dump about one-half it makes a nice slant, making it very easy to pull the sacks to back end of wagon, where strings are cut and grain runs out into bin below. Every farmer, without exception, speaks in glowing terms of the merits of this Dump. In unloading loose grain from wagon there is no dump that will equal yours in being easily handled and always under control of operator. No scaring horses, no dropping of wagon and no noise. I consider a grain elevator incomplete without the Savage & Love Controllable Wagon Dumps.

Yours truly,

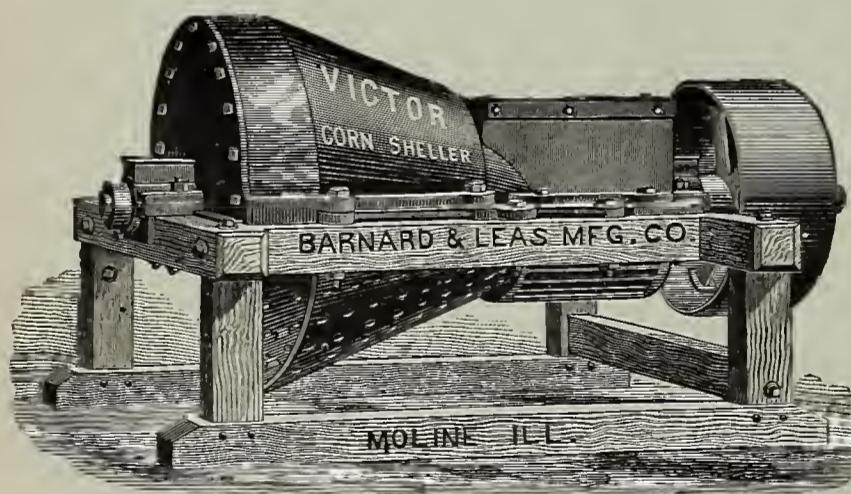
M. C. WOODWORTH.

MANUFACTURED ONLY BY

THE SAVAGE & LOVE CO., Rockford, Ill.

FAIRBANKS, MORSE & CO., St. Paul, Minn., Northwestern Agents.

CORN, CORN, CORN.

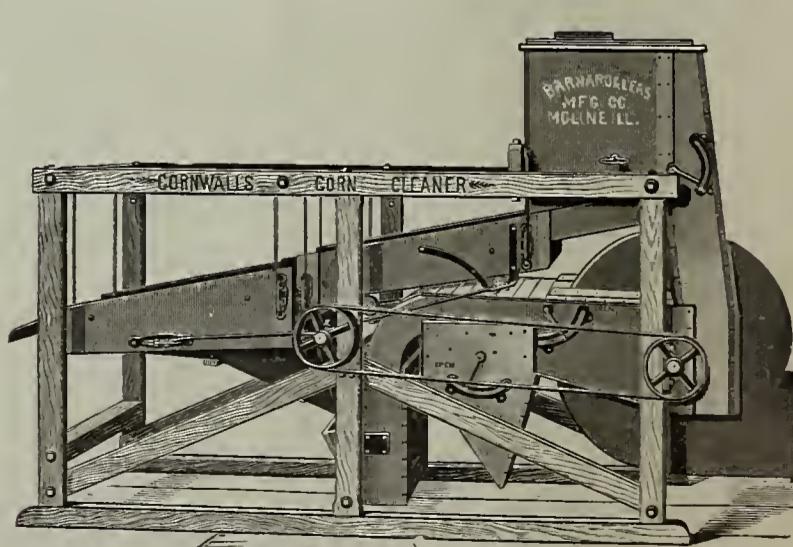


Barnard's New Horizontal Adjustable Warehouse Scourer

IS THE BEST SCOURER IN USE.

Of Large Capacity. It is also the Best Oat Clipper in Use.

Write for further information to



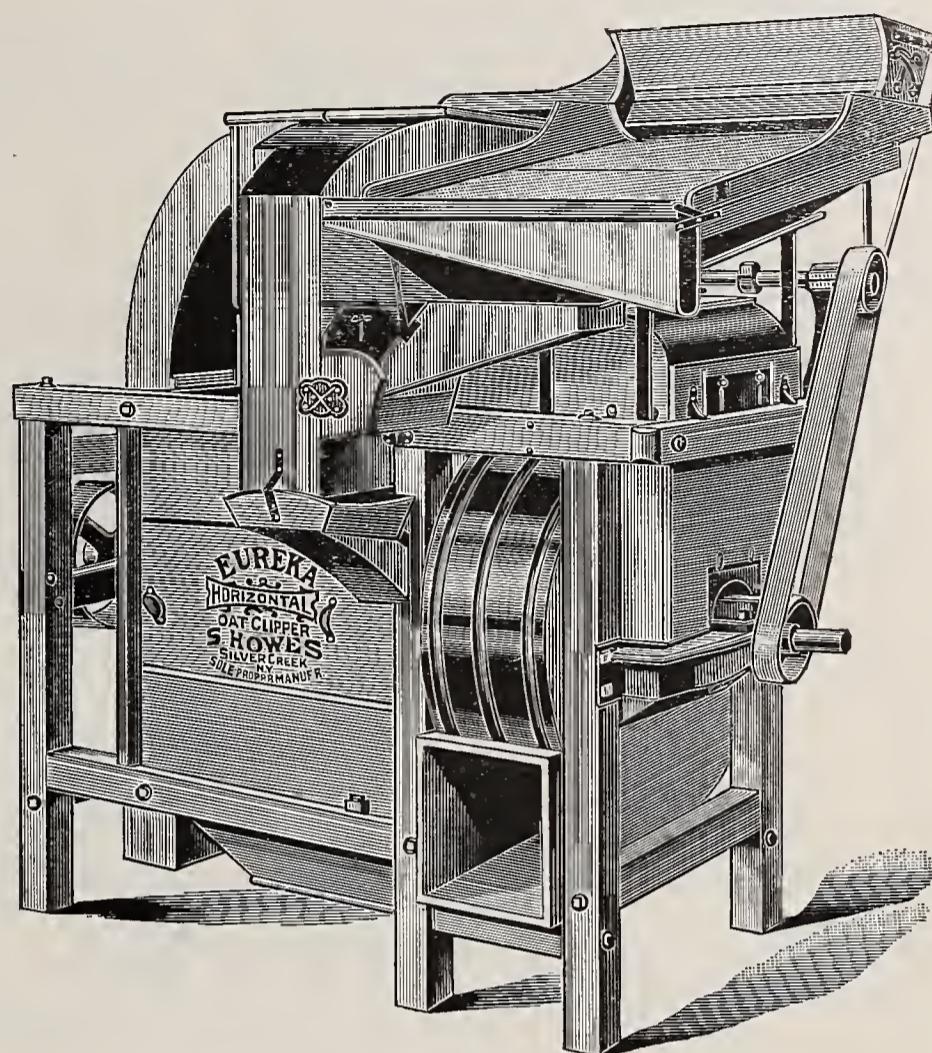
BARNARD & LEAS MFG. CO., MOLINE, ILL.



The



Improved "Eureka" oat-clipper



SEE WHAT A USER OF OUR IMPROVED "EUREKA" HAS TO SAY FOR IT.

CHARLES L. DOUGHERTY,
SHIPPER OF FANCY CLIPPED WHITE OATS,
6 AND 8 PACIFIC AVENUE.
ELEVATOR AT MATTESON, ILL.

CHICAGO, December 10, 1897.

THE S. HOWES CO., Silver Creek, N. Y.

DEAR SIRS:—We take pleasure in informing you that our No. 8 "Eureka" Clipper is doing excellent work. Yesterday, with the steel beaters set as close to the case as we could get them, the actual running time 13 hours, we clipped 19,200 bushels of oats and raised the weight of same 9 pounds to the bushel. If you know of any other Clipper that can do any better work than this, we should like to go and see it. We inclose you check to cover balance on account due you.

Yours respectfully,

C. L. DOUGHERTY.

WRITE FOR PARTICULARS OF THIS CLIPPER AS WELL AS THE BEST WAREHOUSE SEPARATOR MANUFACTURED.

THE S. HOWES COMPANY,

"Eureka" Works,

ESTABLISHED 1856.

SILVER CREEK, N. Y.

Successors to Howes, Babcock & Co., Howes, Babcock & Ewell, Howes & Ewell, S. Howes.



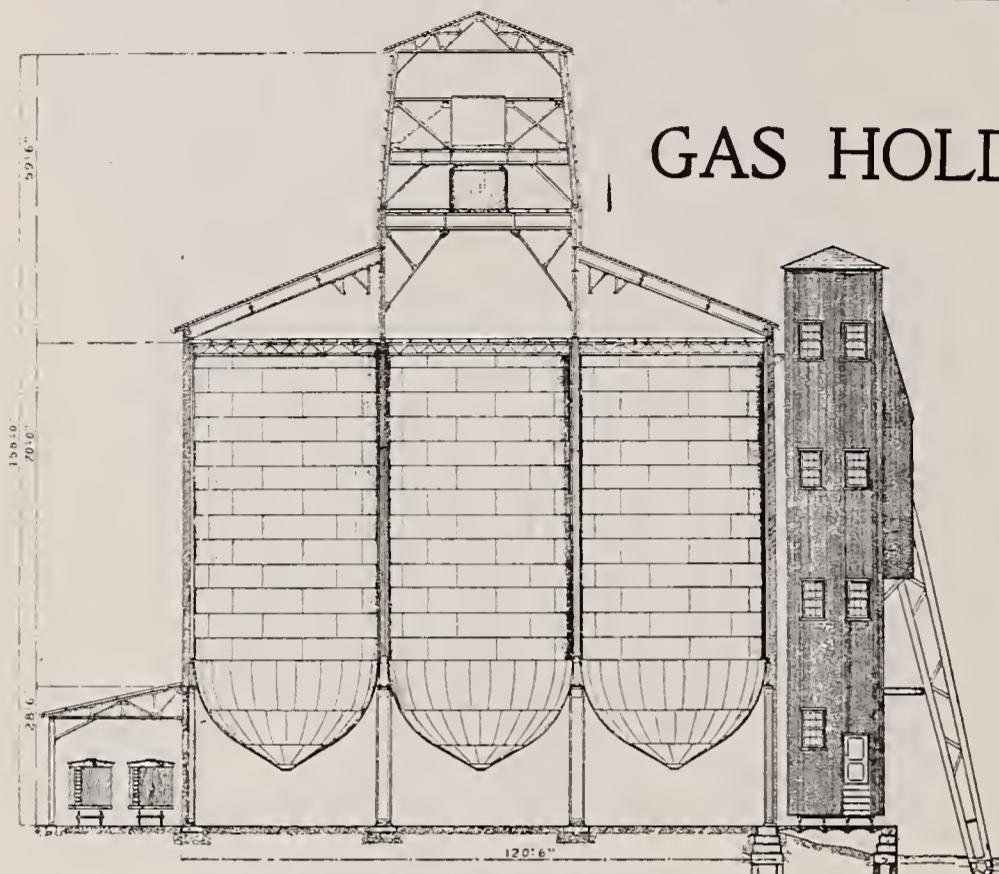
RITER-CONLEY COMPANY,

MANUFACTURERS, ENGINEERS, CONTRACTORS.

GRAIN ELEVATORS OF STEEL,

ALSO

GAS HOLDERS WITH STEEL TANKS,



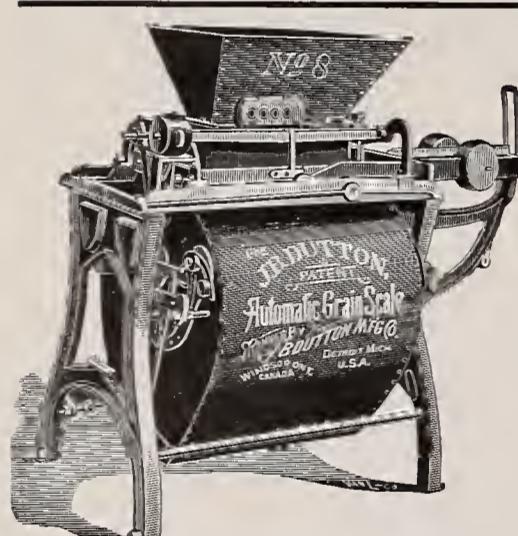
Cross section of Great Northern Elevator furnished by us at Buffalo, N. Y. Three million bushels' capacity. Steel throughout.

WATER AND OIL TANKS,
STEEL BUILDINGS, STEEL STACKS AND
STEEL CONSTRUCTION OF EVERY DESCRIPTION,

Designed, Furnished and Erected
In All Parts of the World.

General Office, Water Street, Pittsburg.
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New York Office, 39 and 41 Cortlandt Street.
Long-Distance Telephone Connections.

J. B. DUTTON'S Patent Automatic Grain Scale.



FOR USE IN

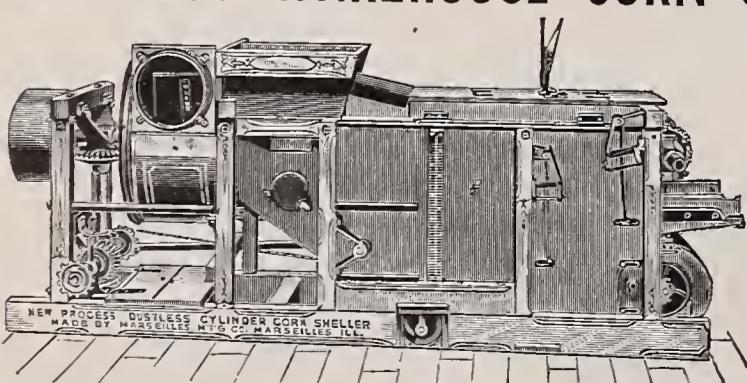
ELEVATORS, DISTILLERIES, MALT HOUSES, FLOUR MILLS, ETC.

ACCURATE AND RELIABLE AT ALL TIMES. SCALES SENT ON 30 DAYS' TRIAL.
SEND FOR CIRCULAR AND PRICE LIST.

Address

J. B. DUTTON, 1026 and 1028 Scotten Ave., DETROIT, MICH.

THE NEW PROCESS DUSTLESS WAREHOUSE CORN SHELLER.



A NEW PROCESS OF SHELLING CORN.

Some of the special features are: An Adjustable Cylinder, White Iron Shelling Parts, Spiral Shelling Head, Double Suction and Blast Fans, Positive Screw Feed, no Clogging, no Grinding of Corn, Cobs Left in Good Shape for Fuel, no Waste of Grain or Power.
We make over 100 styles and sizes of Corn Shellers and can meet all demands. Address

MARSEILLES MFG. CO., MARSEILLES, ILL.

Something New

The
Latest
Improvements

Specially built for
Mills and Eleva-
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Catalogue Free.



150 H. P. Outdoor Rope Drive Installed
1891 at Plant of Michigan Stove
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MANILA ROPE POWER TRANSMISSIONS

OF ANY HORSE POWER DESIGNED
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SHAFTINGS, PULLEYS, GEARINGS, SHAFT
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GRAIN TRIPPERS, CAR MOVERS, GRAIN
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ETS, BOOTS AND BOLTS.

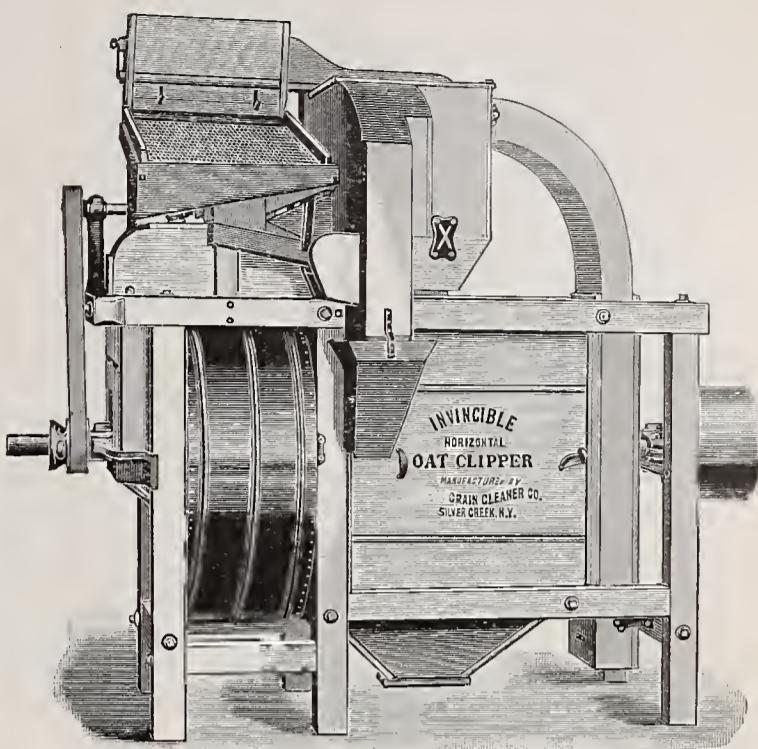
LINK-BELT MACHINERY CO.,
ENGINEERS, FOUNDERS, MACHINISTS,
CHICAGO, U. S. A.

The Invincible Oat Clipper

It is the strongest and best constructed machine on the market. Will do more and better work with the least waste than any other. It contains many important features not found in any other clipper. It has been adopted by some of the most progressive handlers of oats and is pronounced by them superior to any other machine they have ever used.

By our PATENTED PROCESS of introducing air to the cylinder we remove instantly all loosened impurities and there is no chance for the dirt and stuff to lodge and choke.

If interested, we shall be pleased to supply you with a list of users. If you adopt the INVINCIBLE Oat Clipper you will have no trouble. WE POSITIVELY GUARANTEE IT THE BEST MADE and that you will get the best results from its use.



Invincible Grain Cleaner Co., INVINCIBLE WORKS, SILVER CREEK, N. Y.

Remember that we make Separators, the best in the market.

James L. Wheeler, Agent, Gore's Hotel, Chicago, Ill.

PLEASED WITH OUR.. PATENT EDGE.

THE CINCINNATI CORRUGATING CO., Box 369, Piqua, Ohio.

Dear Sirs:—I received the Patent Edge Corrugated Iron Roofing yesterday which I ordered from you on the 2nd inst., and must say that I am exceedingly pleased with the Roofing. I find it to be just as you represented it, and believe it to be cheaper than other Corrugated Roofing I have been buying at seemingly lower prices. I find your Roofing to be heavier than other roofing I have been buying and in all am well pleased. Thanking you for your promptness in shipping this order, and trusting that my future orders will receive the same prompt attention and goods equal those just received, I am,

Yours very truly,

JAS. N. ANDERSON.

CORRUGATED IRON ROOFING

Trucks and Sack Holders.

Improved Trucks

Combination Truck and Step-Ladder, and Single Trucks, Sack Holders and Stand.

Best Boiler Compound recipe, the right to manufacture and use, with instructions. Price..... \$1.00

Combination Truck and Step-Ladder and Single Truck for \$3.00

Prices for larger number given. Write for prices and circulars. Circulars free.

PEERLESS MFG. CO., Springfield, Ohio.

That the best line from Chicago to Cripple Creek, Colo., and all points shown in the

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DENVER CRIPPLE CREEK
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accompanying map is the Chicago & Alton R. R.
Write or call to-day, for lowest rates and full particulars. R. Somerville, General Agent Passenger Department, 101 Adams Street, Marquette Building, Chicago, Illinois.

A GRAIN SPOUT

That will load cars without shoveling. It is worth its weight in gold. It will save you in labor all it costs in less than a month.



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Clark and
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EUROPEAN HOTEL

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One block from C., R. I. & P.
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Depots,

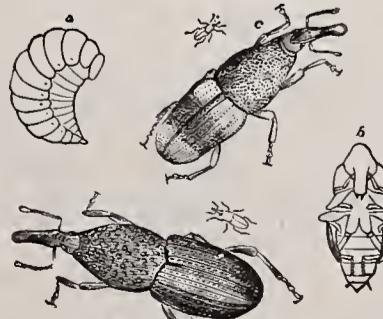
Improvements costing \$75,000 have just been completed, and the house now offers every convenience to be found in any hotel, including hot and cold water, electric light and steam heat in every room. Located in the heart of the business district, in close proximity to the department stores, depots and theaters, and on the elevated loop.

Rates 75 cents a day and upward.

First-class restaurant in connection at moderate prices.

WM. MCCOY,
Owner and Proprietor

"FUMA" Carbon Bi-Sulphide.



Black, Weevil: c, grain weevil; e, natural size (size shown by smaller figures); a, larva; b, pupa.

Send for free illustrated pamphlet. It is interesting, readable and will save you money.

EDWARD R. TAYLOR,
Cleveland, - - - - - Ohio.

"It is the thing for weevil. Will want some more in the spring."—S. N. ARCHER & SONS, Berne, Ohio.

"We have used it before. Handled according to your directions it will do all you claim for it."—INGRAHAM & CARMACK, Dadeville, Mo.

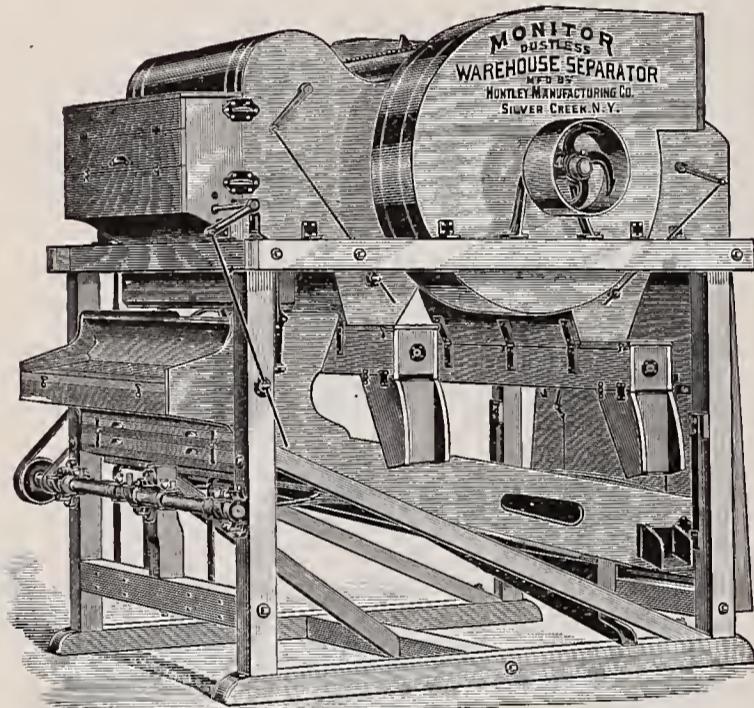
"Why stand idly by while myriads of insects eat what has cost so much labor to harvest?"—WEED.

"The best remedy in every respect for killing grain insects is Bi-sulphide of Carbon. It is cheap, effectual and easy to apply."—ALA. EX. STA. BULLETIN 61.

STANDARD THE WORLD OVER.

Monitor Grain Cleaners, Monitor Oat Clippers.

THERE ARE MORE MONITOR MACHINES IN USE, IN THE LEADING MODERN CLEANING ELEVATORS, THAN ALL OTHER MAKES COMBINED.

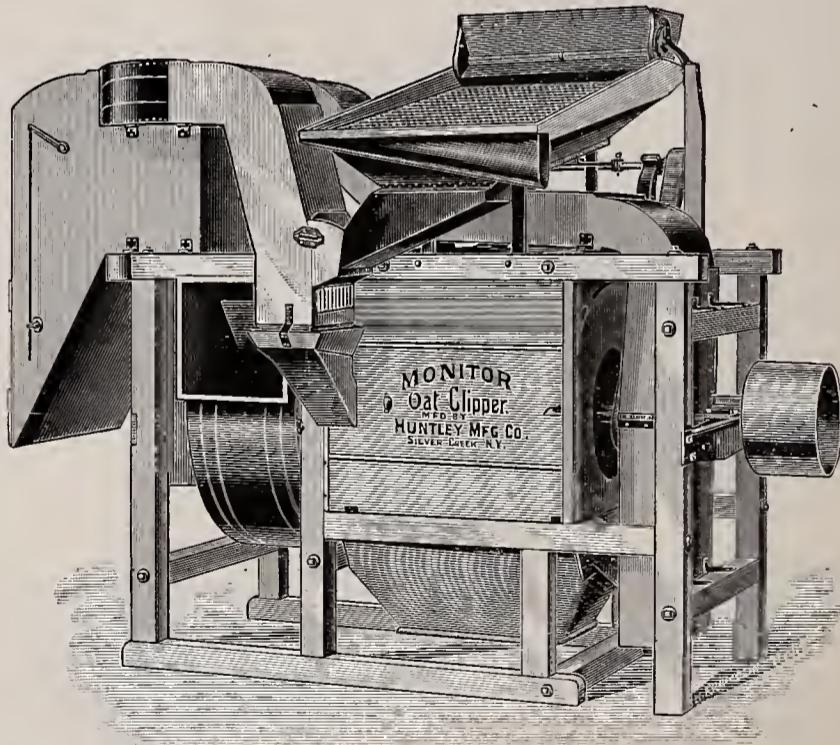


THE MONITOR OAT CLIPPERS have taken their proper place—at the head.

The best constructed clipper made. More capacity and better work than any other. HIGH GRADE IN EVERY RESPECT.

During the last six years all of the leading elevators built in the United States, with but two exceptions, adopted the "Monitor."

COMMENT IS UNNECESSARY.



HUNTLEY MFG. CO.

Silver Creek, N. Y.

THE AMERICAN ELEVATOR AND GRAIN TRADE.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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NEW BURLINGTON ELEVATOR AT PEORIA, ILL.

Peoria is one of the leading primary markets for corn and oats, and seems to be gaining new trade with each new crop, so it was to be expected that the Burlington Elevator which was burned last spring would be rebuilt immediately. The Burlington Elevator Co., of which W. T. Cornelison is president, let the contract to the Barnett & Record Co., the well-known elevator builders of Minneapolis, and the house illustrated herewith was erected in exactly 75 days from the time of breaking ground.

The main building is 87 feet 6 inches wide, by 130 feet long; the first story being built of heavy post and girder work of long-leaf yellow pine. The bins are 68 feet deep, built of 2-inch hemlock planking, and surmounted by a cupola running entire length of the building, and five stories high. Along the west side of the elevator is a track shed over the two loading tracks. On top of this shed are located the dust collectors in a room 9 feet wide, 87 feet long, and 16 feet high. The walls are covered with corrugated iron, and the roof with tar, felt and gravel. The engine and boiler house are built of brick 46 feet 6 inches wide, 75 feet 6 inches long, with walls 21 feet high. Adjacent to the south end of the engine room there is a brick oil room 11 feet by 10 feet.

The elevator is equipped with six elevator legs, 18x7x7 inch cups, with 84-inch head pulley; three legs are receivers, and any one of the six may be used for shippers. Three belt conveyors 30 inches wide are located in the basement for the purpose of carrying grain across the house and discharging it to the three elevators on the west side. In addition to these elevators there are two cleaning legs with 12x7x7 inch cups, running from the basement to the top of the bins, and taking the grain from the clippers. The car puller located on the first floor is a very powerful affair with double drums arranged to handle cars not only on the two railroad

tracks running through the elevator, but also on the two loading tracks west of the elevator. On the first floor there are four Eureka Oat Clippers and one separator of the same make.

The cupola contains a large garner and a 1,200-bushel Fairbanks Scale for each of the six elevator legs. The line shaft is located on the garner floor, driving the elevator heads by direct rope transmission. The bin floor is equipped with a complete system of Mayo Trolley Spouts both from the

standpipe and hose, are included in the equipment of this elevator.

The construction was done under the supervision of Mr. F. R. McQueen, of the Barnett & Record Co., with Mr. M. Flynn as general foreman.

It should be added that there never was a hitch or a mishap during the construction of the elevator from the date the ground was broken until grain was received, and when started the machinery proved to be perfect in every respect, and equal to the

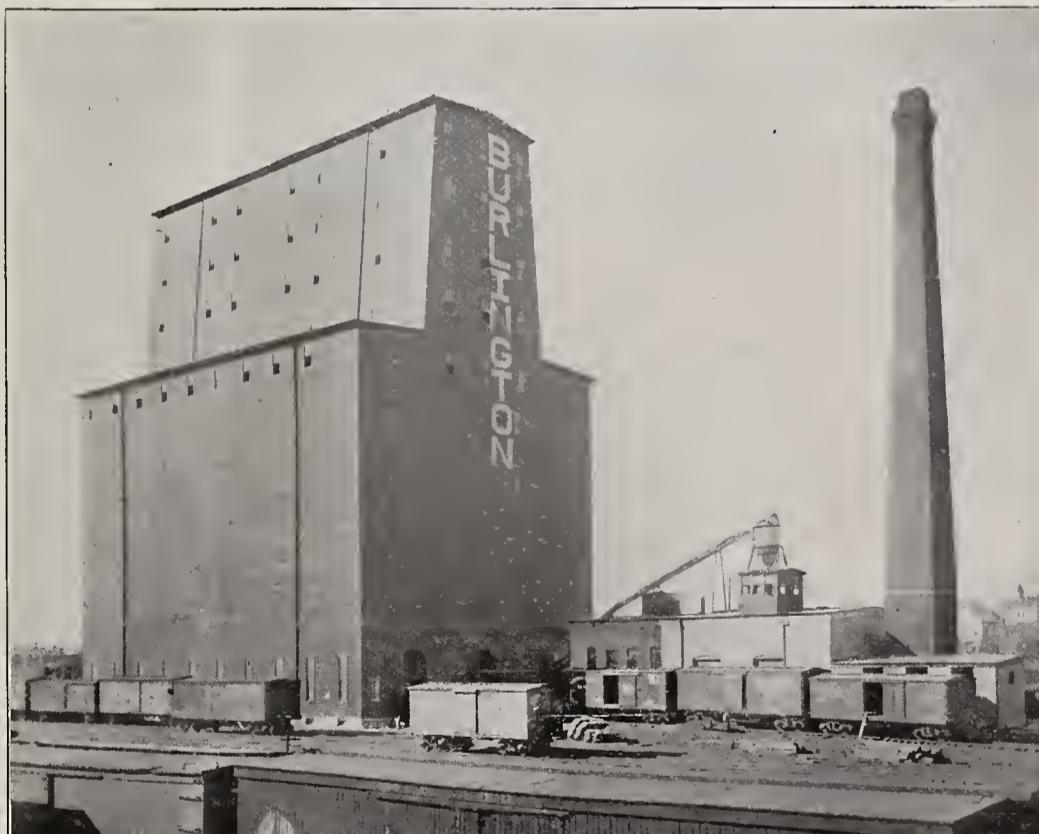
heavy work demanded of it.

Messrs. John S. Metcalf & Co. of Chicago made the plans and specifications for the Burlington Elevator Company, while the Barnett & Record Company took the contract in competition with the other elevator builders of the country.

CINCINNATI'S GRAIN TRADE.

The report of the Superintendent of the Chamber of Commerce of Cincinnati, Ohio, gives the yearly movement of flour, grain, etc., at that place as follows: Receipts of flour for 1897, 1,984,722 barrels; for 1896, 1,984,843 barrels; shipments for 1897, 1,591,967 barrels; for 1896, 1,580,843 barrels. Receipts of wheat for 1897, 1,993,342 bushels; for 1896, 1,452,702 bushels; shipments for 1897, 1,551,091 bushels; for 1896, 1,093,152 bushels. Receipts of corn for 1897, 15,673,718 bushels; for 1896, 12,991,805 bushels; shipments for 1897, 13,016,832 bushels; for 1896, 10,334,897 bushels. Receipts of oats for 1897,

8,624,122 bushels; for 1896, 4,680,090 bushels; shipments for 1897, 5,637,110 bushels; for 1896, 2,490,866 bushels. Receipts of rye for 1897, 566,948 bushels; for 1896, 361,639 bushels; shipments for 1897, 264,769 bushels; for 1896, 142,326 bushels. Receipts of clover seed for 1897, 42,975 bags; for 1896, 37,654 bags; shipments for 1897, 32,902 bags; for 1896, 31,609 bags. Receipts of timothy seed for 1897, 52,124 bags; for 1896, 60,529 bags; shipments for 1897, 29,335 bags; for 1896, 39,453 bags. Receipts of other grass seeds for 1897, 55,868 bags; for 1896, 48,926 bags; shipments for 1897, 56,011 bags; for 1896, 53,167 bags.



THE NEW BURLINGTON ELEVATOR AT PEORIA, ILL.

scales and from the before-mentioned clipper legs. On the west side of the elevator are located three Sandmeyer Loading Spouts, discharging to either one of the two loading tracks. The elevator is equipped throughout with a perfect system of pneumatic dust collecting apparatus, floor sweepers, etc., furnished by the Allington & Custis Mfg. Co.

The power plant consists of a Corliss Engine, 24 inches in diameter and 48-inch stroke, and a battery of four boilers especially built to order, with charcoal iron tubes and hand riveted. A complete electric light plant, as well as a fire pump with

THE COUNTRY ELEVATOR AS AN INSURANCE RISK.

In a recent interview on the fire hazard of the country elevator Col. W. L. Barnum, secretary of the Millers' National Insurance Co., of Chicago, said:

"There is no class of risks more attractive, physically, than the modern country elevator, properly cared for. They are substantially constructed. There is very little machinery in them, and what there is is not attached to the building at any point, thus obviating the danger of hot boxes from shafting getting out of line, owing to uneven settling of the building. These new elevators are nearly all operated by gas engines placed in fireproof power houses detached at least 20 feet from the elevator, and there is but little danger of fire from the engine or material employed."

"On the other hand, the old elevators are in nearly all cases operated by steam or horse power, and are not physically attractive. There is a great quantity of shafting and belting in the building which changes its alignment every time a load of grain is put into or taken out of the elevator, with a consequent danger of fire from heated journals. In the steam elevators, the man who fires the boiler also attends to all other work about the elevator, and the power plant does not receive the care it should. In the horse power houses the horses are generally kept in the power house, which contains a hay loft, and the principal hazards are from the tendency of tramps to break into and use the loft at night as a place to sleep, and in the use of lanterns while the horses are being cared for at night. The old elevators are fast disappearing, but as long as any remain they will be a source of loss to the insurance companies unless they are closely inspected from time to time, and defects, as they appear, remedied so far as possible."

"There is a hazard which is common only to what are known as line houses, houses operated entirely by hired help. I refer to the tendency of a dishonest agent to burn his house for the purpose of covering up a shortage in his accounts. This is, without doubt, the most frequent cause of fires in the line elevators, but even this feature has its good effect on the honest agent, as it causes him to be very careful, knowing that a fire in his house from any cause will surely place him under suspicion to some extent. There is another hazard very closely related to the one last mentioned, and it also applies only to line houses. An old-fashioned house is often tedious and slow in handling grain, and requires considerable manual labor, on the part of the agent, to operate. When I find a house of this kind, where there is a certainty of a modern house replacing it in case of loss, I take the standing of both the owner and agent into consideration, as the agent has little to fear from the owner, if a fire occurs, and he will have a much more pleasant position after the new house goes into operation."

"The independent houses do not class as well physically as the line houses, for the reason that they have not received as much attention from the insurance companies. The construction of the independent house is similar, but the evidence of care is lacking."

"The most frequent cause of accidental fire in steam elevators can undoubtedly be traced to the power plant, which is frequently faulty in construction, and is not watched or cared for closely enough. The office stove and chimney are also responsible for many fires. If the office is in or attached to the elevator, the brick chimney becomes defective from vibration. Sparks from locomotives cause many fires in elevators. Broken windows, dry dust on water tables, window and door sills, dry grass and weeds, warped lap-siding, are the various instruments which catch the spark and give the fire a starting place."

"Corn shellers and matches make a bad combination. A farmer on his way to market drops matches in his load of ear corn, which is dumped directly into the sheller. The matches pass through the sheller without being ignited, and are finally deposited among the dry dust, silks and shucks. Some person steps on a match, or a mouse nibbles it, and

the fire is started. The refuse from a corn sheller should be immediately carried to a safe distance from the elevator. Gasoline engines are only dangerous when placed in the elevator, or when dust, in any great quantity, can reach them. The gasoline line should be kept at a safe distance from the elevator, and guarded by lock and key."

"Cleaning machinery in country elevators should be subject to the same regulations and rules as govern in our terminal elevators and flour mills. If the country elevators were to receive the same attention from an inspector, as do the flour and saw mills, and other special hazards, they would soon class as desirable risks. In every case, where the companies have given the country elevator proper attention, the business has proven profitable, but in the condition they are usually found on the first visit of an inspector, they are not attractive, and will not prove desirable risks."

G. W. WIRT.

The Trans-Missouri Federation of Grain Dealers' Associations, which was organized at St. Joseph, Mo., November 26, selected G. W. Wirt of York,



G. W. WIRT, YORK, NEBR.

Nebr., for president, not J. Wirt, as was erroneously reported last month.

G. W. Wirt was born in Summit County, Ohio, in 1847. In 1858 he moved with his parents to Mendota, Ill., where he grew up as a farmer. In 1875 he moved to York County, Nebr., where he engaged in farming, stock raising, feeding and shipping stock. In 1882 he became interested in the grain business with different partners, and in time built twenty elevators on the B. & M. R. R. in Nebraska. In 1892 he owned and operated fourteen elevators. He is manager of the York Grain Co., which has houses at York, Axtell, Holbrook, Edison, Culbertson, Guide Rock, Anselma, Mason City.

Since becoming interested in the grain business he has been a believer in organization and an active worker in grain dealers' associations, and, no doubt, will take up the work of his new position and push it with determination to make the Federation a success.

Mr. H. C. Fairbanks of Sibley College, while reconstructing a gas engine, observed a singular though probably not exceptional phenomenon which, so far as known, has not been previously described. This machine exhibited a great loss of heater efficiency, which was unaccounted for, and was not affected by any changes made in the process of general repair. Finally it was suspected that the conductivity of the metal of the cast-iron "firepot" had been impaired by oxidation or otherwise, and it was replaced by a new one. The engine at once started off at full power, and regained its original efficiency.

BUFFALO'S GRAIN RECEIPTS FOR 1897.

Receipts of grain, including flour, aggregated for 1897, 264,844,905 bushels; for 1896, 215,352,554 bushels; for 1895, 162,936,630 bushels; for 1894, 161,401,815 bushels. Receipts of grain of all kinds for 1897 were 201,651,280 bushels; for 1896, 163,431,814 bushels; for 1895, 118,077,930 bushels; for 1894, 103,959,165 bushels; for 1886, 72,514,840 bushels; for 1876, 46,038,598 bushels; for 1866, 51,820,342 bushels; for 1856, 20,123,667 bushels; for 1846, 6,491,522 bushels; for 1836, 534,461 bushels.

The receipts of flour in 1897 aggregated 12,638,725 barrels; in 1896, 10,384,184 barrels; in 1895, 8,971,749 barrels.

Receipts of wheat in 1897 were 56,142,718 bushels; in 1896, 54,411,207 bushels; in 1895, 46,848,510 bushels; of corn in 1897 receipts were 57,741,741 bushels; in 1896, 47,811,010 bushels; in 1895, 38,244,960 bushels. The receipts of oats in 1897 were 65,482,925 bushels; in 1896, 40,107,499 bushels; in 1895, 21,943,680 bushels. The receipts of barley in 1897 were 14,823,919 bushels; in 1896, 16,697,744 bushels; in 1895, 10,253,440 bushels. The receipts of rye in 1897 were 7,459,977 bushels; in 1896, 4,404,354 bushels; in 1895, 787,340 bushels.

KANSAS CITY'S GRAIN TRADE.

Kansas City is steadily progressing toward the realization of its destiny to become one of the great grain markets. The year just past was the banner year in the history of the market, and all records were broken in the matter of receipts. The opening of a new outlet to the sea has given an impetus to the export trade in all lines which is especially felt in the grain trade. The southern route is not only the shortest, but is cheaper in other respects, making Kansas City the logical and practically necessary distributing, as it is the receiving, center for the vast region.

Kansas City in 1897 received in round numbers 26,000,000 bushels of wheat, 18,500,000 bushels of corn and 4,000,000 bushels of oats. During the same period 90,000 tons of hay, 293,150 bushels of rye, 16,000 bushels of barley, and 317,200 of flax were received, the total grain received being valued at over \$30,000,000.

The Journal of Kansas City says: In anticipation of these vast crops and realizing that some day it would be called on to handle them, Kansas City has gradually increased its transportation and elevator facilities until to-day it stands ready to meet all demands. It has twenty-seven lines of railroads radiating in every direction, 326 miles of switch track, and 1,436 miles of switches in its elevator and manufacturing districts, and its elevator interest has correspondingly grown until its handling capacity has reached 1,445,000 bushels per day, and its storage capacity 6,060,000 bushels. With such facilities it must be but a short time before Kansas City will dominate the grain trade of the trans-Mississippi country.

The grain elevators at Kansas City and their storage and handling capacity are as follows:

Names.	Handling capacity, bushels.	Storage capacity, bushels.
Union	100,000	400,000
Missouri	60,000	175,000
Kaw	30,000	45,000
Crescent	40,000	200,000
Sun	50,000	300,000
Empire	20,000	400,000
Exchange	50,000	300,000
Star	15,000	45,000
Diamond	20,000	55,000
Eclipse	25,000	75,000
National	20,000	100,000
Union Pacific	250,000	1,000,000
A., T. & S. F.	150,000	750,000
Argentine	40,000	150,000
Rosedale	25,000	80,000
Rock Island	40,000	175,000
Rex mill	125,000	500,000
Maple Leaf	300,000	1,000,000
New Indian rice mill	10,000	20,000
Southern	25,000	40,000
Gate City warehouse	50,000	250,000
Totals	1,445,000	6,060,000

THE GRAIN TRADE OF ST. LOUIS.

At the recent annual banquet of the Associated Wholesale Grocers of St. Louis, Ex-Governor D. P. Francis, who is recognized as authority on subjects relating to the grain trade of that city, responded to the toast, "The Grain Trade." In the course of his remarks, Mr. Francis said:

The construction of railways from the Missouri River to the gulf has diverted from St. Louis large quantities of grain which formerly were marketed here. The improving of Galveston harbor and securing deep water there rapidly revived the languishing commerce of that city. The clearances of wheat and corn from Galveston during eleven months of the year now closing were 6,050,951 bushels of wheat, and 3,786,621 bushels of corn, or a total of 9,830,000 bushels, against 9,660,000 in 1896, and 1,233,477 in 1895. This grain was carried to Galveston by the Missouri, Kansas & Texas, the Atchison, Topeka & Santa Fe and Kansas City, Pittsburg & Gulf Railroads, and none of it passed through St. Louis.

New Orleans exported 8,329,000 bushels of wheat, and 24,692,000 bushels of corn, or a total of 33,000,000 bushels, during eleven months of 1897, as compared with 29,000,000 bushels in 1896, and 9,500,000 in 1895. Of the 1897 shipments only 5,000,000 bushels, or about 15 per cent., passed through St. Louis.

Since July last St. Louis exporting houses have shipped abroad from 10,000,000 to 20,000,000 bushels of grain, which have never been near St. Louis. My own house has exported over 2,500,000 bushels, and only 27,000 thereof went from or through St. Louis. Other houses here have had similar experiences. Some of us have been compelled to establish houses in Kansas City, and the others will have to do so if rates via St. Louis cannot be established on a competing basis. The proper utilization of the Mississippi River will bring about the desired result. A rate of 5 cents per hundred, or 3 cents per bushel, from St. Louis to New Orleans would have attracted to this market at least 10,000,000 bushels of grain which have gone elsewhere during the past six months. It is claimed by men of intelligence, character and experience in water transportation that steel barges can be constructed which will carry 35,000 bushels of grain on 4 feet of water, and which will yield a handsome return on the money invested by charging but 3 cents per bushel from St. Louis to New Orleans.

During the five months beginning July 1, and ending November 30 last, Kansas City received 20,500,000 bushels of wheat, while St. Louis received but 8,526,000. Kansas City has direct rail connection with Galveston and New Orleans, and I can speak for one St. Louis grain house which has exported over 2,000,000 bushels of wheat from Kansas City through those ports within the last four months. The Pittsburg & Gulf Railroad is making a ship canal and building an elevator at Port Arthur, and will soon be clearing grain and receiving imports at that point. Grain, like other heavy freight, will seek that route to consuming markets which offers least resistance, and $\frac{1}{2}$ cent, or even $\frac{1}{8}$ cent per bushel, will determine its course. A rate of 3 cents per bushel to New Orleans will attract much Nebraska and Iowa grain which now goes via Kansas City to the gulf or via Chicago and the lakes to the Atlantic. Railroads running to St. Louis, and which have no gulf outlet, would be greatly benefited by a cheap river rate. Roads like the Chicago, Burlington & Quincy and Wabash & Chicago and Alton prefer to bring grain to St. Louis, because that gives them a longer haul, and from here their cars return laden with merchandise. The Missouri Pacific would rather haul to St. Louis than to Kansas City, because of the longer distance, and the return freight, but as it virtually owns a line to the gulf, the Texas Pacific, it has sent considerable grain by that route for export, and has not brought it through St. Louis. The St. Louis & San Francisco Railroad, since its severance from the Atchison system, is more distinctly a St. Louis road than any other road coming to this city, as it has no gulf connection, and St. Louis is its eastern

terminus, but it has recently arranged to build to Kansas City, and will be there within the next three months. The Frisco is opening up territory unsurpassed in capacity for production and naturally tributary to St. Louis, but if we would hold the business of that section we must make it to the interest of its people to trade with us—we must provide a market for their products.

The principal grade of export wheat, and the only kind I have shipped on this crop, is what is known as hard winter wheat; it is grown mainly in Kansas, Nebraska, Indian Territory and Oklahoma, and at least 75 per cent. of the wheat exported from the Missouri and lower Mississippi Valley on this crop has been of that variety. It has, since the crop began to move, commanded in Kansas City and St. Joe markets within 2 cents to 3 cents of what it would bring in St. Louis, and often those markets have been as high as ours. The reason for these conditions is that at no time within the past five months have shippers been able to get a rate from St. Louis to New Orleans by river of less than 5½ cents per bushel, and during most of the time room could not be obtained at that rate. The prevailing and open rate from Kansas City to New Orleans and Galveston has been 9 cents per bushel, which was less than 3 cents above the St. Louis all-water rate when marine insurance is taken into account.

B. M. STODDARD & SON'S ELEVATOR AT TOLUCA, ILL.

Located in the rich agricultural county of Marshall, the elevator at Toluca, Ill., owned by B. M. Stoddard & Son, and illustrated on this page, is one of the most successful of Illinois houses. As will be noticed, the building and its surroundings are strictly utilitarian in character, and architectural effect has not been sought. The buildings extend 148 feet along the switch from the Santa Fe Road. In addition to those shown in the cut, additional bin room has been added to the west, 20 by 40 feet, and 27 feet high.

At each end of the main house is an oats bin 27 feet high, and on the opposite side of the driveway there is also an oats bin 20 by 80 feet and 20 feet high. The capacity of the end bins is 30,000 bushels each; of the side bin, 35,000 bushels, and of the main house 25,000 bushels, making a total capacity easily of 120,000 bushels. The corn cribs have a capacity of 25,000 bushels.

The buildings are constructed of studding sided and sealed, and all except the main part is covered with composition roofing. Under the whole building is a first-class stone foundation. The power is furnished by a Lewis Gas Engine of 5½ actual horse power. There are three dumps and two elevator legs; one



B. M. STODDARD & SON'S ELEVATOR AT TOLUCA, ILL.

If we had had a 3-cent per bushel rate from St. Louis to New Orleans, the roads running between Kansas City and St. Louis would have made a rate to St. Louis of 5 cents to 6 cents per hundred, or 3 cents per bushel, and that would have meant a 6-cent per bushel rate from Kansas City and St. Joe to New Orleans via St. Louis, and it would have drawn the grain here, as the railroads cannot afford to haul from Missouri River to the gulf at 10 cents per 100, or 6 cents per bushel; if they could do so, however, science could surely cheapen the cost of river transportation so as to compete with the land route, which is of necessity more expensive, and which has never been able to hold its own in a contest with the water route where time was not an essential element in the service performed.

You may, in reply to these statements, claim that it is the duty of the grain and elevator interests here to devise methods and provide means for remedying the situation. In answer, I will say that those interests have long since realized the jeopardy of our grain situation, and a number of our largest grain exporting houses have been forced to do their business outside of and around St. Louis. Most if not all of them have established relations with transportation lines which they are now unwilling to disturb. All of them, however, admit the impending danger, and if it is not obviated, look forward with regret to the time when they will be compelled to abandon St. Louis as a desirable point for the accumulation and shipment of grain.

The country elevator men who neglect to help support the grain dealers' associations are throwing away splendid opportunities to share in a number of advantages which are of value to their businesses.

carrying 12-inch cups, and the other 9-inch cups. An improved suction fan for cleaning grain, scales, etc., complete the equipment of this successful house.

GRAIN HANDLED AT THE HEAD OF THE LAKES.

The total receipts of all grain at the head of the lakes during 1897 were 88,045,000 bushels, including flour as grain that arrived for lake shipment. The total shipments amounted to 85,004,500 bushels. The total receipts of wheat were 48,058,943 bushels, as compared with 58,292,653 bushels in 1896. The shipments of wheat amounted to 36,137,520 bushels, as compared with 50,652,517 bushels in 1896.

The greatest increase shown in grain receipts is in corn. The receipts for 1897 were 2,069,305 bushels, as compared with 410,661 bushels in 1896. There is now 1,700,000 bushels of corn in round numbers in store in elevators. Oats receipts also show an increase. The receipts for 1897 were 6,866,446 bushels, as compared with 4,832,098 bushels in 1896. The receipts of flax for 1897 were 5,433,847 bushels, as compared with 5,956,781 bushels for 1896. Barley receipts amounted to 5,479,877 bushels in 1897, as compared with 6,866,422 bushels in 1896.

The shipments of corn amounted to 354,129 bushels in 1897, as compared with 408,433 bushels in 1896. Shipments of oats were 6,296,345 bushels, as compared with 4,864,954 bushels in 1896. Shipments of barley amounted to 5,066,252 bushels for 1897, and for 1896 they were 6,795,775 bushels. The shipments of flax were 6,460,127 bushels, as compared with 6,382,148 bushels in 1896. Rye shipments were 1,311,593 bushels, as compared with 1,273,020 bushels in 1896.

INTEREST OF FARMERS AND DEALERS IN OVERCHARGES.

One of the arguments used to discourage the grain shippers of Northwest Iowa in their suits against the railroads, brought to recover overcharges on grain shipped, is that the farmers paid the overcharge, and they are entitled to it, if the railroads see fit to give it to anyone. The Leader of Des Moines, Iowa, very rightly says, the grain dealers of Northwestern Iowa have important suits, involving hundreds of thousands of dollars, pending against certain railroads for alleged overcharge in grain freights. It is claimed that for a long time 4 cents per 100 pounds more than was legal was exacted from shippers, and the suits are for recovery. In this connection the counter claim is now being put forward, if recovery is made, that the farmers who sold the grain, and not the shippers, are entitled to the money. The grain was bought, it is said at Chicago prices, less the cost to market, and the overcharge, of course, came out of the farmer, not out of the shipper. There is undoubtedly truth in this contention. The farmer undoubtedly was the fellow who really suffered. In morals he has a good claim to the 4 cents excess, but unfortunately, good morals are not always good law. And, judging from the quarters whence this claim originates, and where it is most strongly urged, the design in pressing it into notice is not to give the farmers something, but to prevent the railroads paying anything. Pursued by the shippers, the railroads declare the shippers have no just claim, and it may easily be surmised that if they were pursued by the farmers the answer would be that the farmers had no legal claim. The little pea would be quickly shuffled from under one shell to the other. Under the circumstances, the interest of the farmers is with the shippers. Recovery would make it reasonably certain, for a long time at least, that similar overcharges would not be made. The farmer, above all others, is concerned in the punishment of transportation overcharges, and this is so independent of whether in a particular case he gets his just share of the rebate.

INVENTED THE WAGON DUMP.

"It's curious," said T. M. Thornbury, the veteran stock dealer of Bloomington, Ill., recently to a representative of the Pantagraph, "how near a man can come to making his fortune and yet miss it. In 1868 I was buying grain at the brick mill on the Central Railroad here. I was getting in 1,500 bushels of corn a day, and could only get room at the windows to scoop about 1,000. So plenty of corn went by because I couldn't handle it. I sat up all night with a carpenter, trying to devise some plan to get the corn into the basement, at last, like a flash, the idea of dumping the whole load occurred to me, and in two days I had the dump completed. I went out a mile or so on the Bentown road early in the morning, and the first load of corn I met I asked the owner to try my dump. He did so, and going back home he told every farmer he met that he would save a lot of backache by going to the brick mill. The consequence was, that in two days all the corn that came to town went over my dump. The other buyers were forced to put in dumps like mine to get any corn."

"Well, I was very busy, and had a whole lot of things to think of, and didn't even file a caveat. In fact, I didn't realize what a good thing I had. Some time after a fellow from Galva came to look over my elevator, and he tumbled to the idea at once and took out a patent, but he got into some business troubles and several years elapsed, and finally he sold his patent to Harper of El Paso. In the meantime, the idea had spread all over the country, and dumps had got to be universal."

"Harper saw the value of the invention and started out to collect a royalty on every dump in the Northwest. When he struck Mr. E. H. Rood here, Mr. Rood told him that it was my invention and refused to pay. The matter got into the courts and dragged along until the patent expired by limitation, and I don't think even Harper made much out of it."

"Of course, the public gets the benefit of the invention, but just think what would have happened

if I had had the 'gumption' to freeze onto that idea with a patent. I tell you I'd be smoking 25-cent cigars now instead of this cheap cheroot."

GEORGE M. ROBINSON.

Grain men are pretty well acquainted with the Charter Gas Engine Co. of Sterling, Ill., as that company was one of the first, if not the first, to introduce the idea of driving grain elevators by means of gasoline engines. It was an idea that "took," and Mr. Geo. M. Robinson, president of the Charter



GEORGE M. ROBINSON, STERLING, ILL.

Company, did a vast deal of missionary work to show people that it cost less to feed a gasoline engine than it did a horse, and that the peculiar conditions under which the ordinary elevator is operated made the gasoline engine an ideal power.

Mr. Robinson was born in Zanesville, Ohio, in 1854, and came West in 1856. He has lived in Sterling since 1861, and therefore only escapes being a native of that place by a narrow margin. When 17 years of age he entered the banking house of Patterson & Co., and a year later went into the office of the Williams & Orton Mfg. Co. of Sterling, which was then the style of the Charter Gas Engine Co. Mr. Robinson completed twenty-five years of service in the concern last month. He has risen from one position to another until he is now presi-

DETROIT'S GRAIN TRADE FOR '97.

The receipts and shipments of flour and grain at Detroit, Mich., for 1897, with comparisons for the three preceding years, as reported by the Detroit Board of Trade, are as follows:

Flour receipts for 1897 were 326,825 barrels; for 1896, 264,696 barrels; for 1895, 159,520 barrels, and for 1894, 166,433 barrels. Flour shipments for 1897 were 148,600 barrels; for 1896, 164,194 barrels; for 1895, 148,766 barrels, and for 1894, 133,690 barrels.

Wheat receipts for 1897 were 4,054,804 bushels; for 1896, 3,027,750 bushels; for 1895, 2,796,335 bushels, and for 1894, 5,113,096 bushels. The wheat shipments for 1897 were 2,705,001 bushels; for 1896, 1,559,305 bushels; for 1895, 2,493,355 bushels, and for 1894, 4,368,700 bushels.

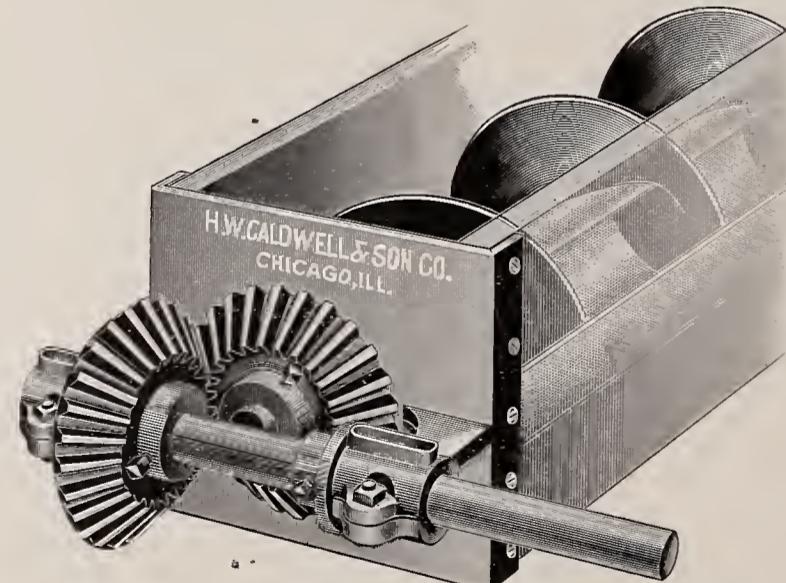
Corn receipts for 1897 were 2,213,910 bushels; for 1896, 1,750,890 bushels; for 1895, 1,903,746 bushels, and for 1894, 1,602,610 bushels. The corn shipments for 1897 were 959,718 bushels; for 1896, 683,607 bushels; for 1895, 796,737 bushels, and for 1894, 479,982 bushels.

Oats receipts for 1897 were 1,885,842 bushels; for 1896, 1,989,262 bushels; for 1895, 1,811,836 bushels, and for 1894, 2,031,201 bushels. Shipments of oats for 1897 were 397,990 bushels; for 1896, 295,401 bushels; for 1895, 164,789 bushels, and for 1894, 528,170 bushels.

Rye receipts for 1897 were 1,238,977 bushels; for 1896, 1,024,890 bushels; for 1895, 81,604 bushels, and for 1894, 82,403 bushels. Shipments of rye for 1897 were 1,128,210 bushels; for 1896, 876,274 bushels; for 1895, 37,225 bushels, and for 1894, 62,625 bushels.

COUNTERSHAFT BOX END FOR CALDWELL CONVEYOR.

The accompanying cut shows a new and convenient appliance for use in connection with the Caldwell Conveyor. Lines of conveyor often run at right angles to the shaft from which the power to drive them is taken. When a conveyor is thus located it is frequently necessary to use a countershaft with miter gears. Independent pillow blocks have been used heretofore for the countershaft bearings, and to provide the necessary supports for these bearings has involved considerable expense. The device illustrated herewith is designed to provide a cast-iron box end for the conveyor box, and as a part of the same casting furnish the bearings necessary for the miter gear countershaft. Both convenience



COUNTERSHAFT BOX END FOR CALDWELL CONVEYOR.

dent and treasurer. A record like that tells its own story of business ability and steady application that needs no comment.

The eastward shipment of grain by rail from Buffalo elevators during the year just closed totaled 164,067,235 bushels, as against 120,984,620 bushels in 1896, and 94,287,770 bushels in 1895. The number of vessels arriving at the port of Buffalo during the past season was 5,752, with a tonnage of 5,773,876. This is an increase of 171 vessels and 139,382 tons over 1896. The clearances were 5,811 vessels, with a tonnage of 5,807,982, an increase of 70 vessels, and of 137,734 tons over last year.

and economy are thus obtained by this simple arrangement.

As will be seen from the illustration, the bearings are so arranged that the projecting shaft to which the sprocket wheel or driving pulley is to be attached can extend on either side of the box, and the position of the miter gear on the short countershaft can be shifted from one side to the other, so that the motion of the conveyor can be changed as desired. This device is made by H. W. Caldwell & Son Co., 127-133 W. Washington Street, Chicago, manufacturers of the widely-known Caldwell Conveyor, and they will be pleased on application to quote prices or give any desired information.

TO TAX GRAIN IN ILLINOIS ELEVATORS.

Representative La Monte of Cook County has introduced a bill in the Illinois Legislature entitled "an act for the assessment of property and for the levy and collection of taxes," which is of interest to the elevator men of the state. It provides as follows:

Section 1. Be it enacted by the people of the state of Illinois, represented in the General Assembly: That section I of an act entitled, "An act for the assessment of property and for the levy and collection of taxes," approved March 30, 1872, in force July 1, 1872, be amended by adding thereto the following:

Fifth. All grain of whatsoever kind and nature in any elevator, warehouse or storage house in this state, and all elevator, warehouse or storage house certificates calling for grain or showing that any person is entitled to have delivered to him, her or it any such grain.

(A) Every person or company owning, running, managing or controlling any elevator, warehouse or storage house wherein any grain is stored or kept shall, between the 1st and 10th days of May of each and every year hereafter, make a written statement under oath to the assessor of the town

or company. If no return is made to the assessor, then such person or company who ought to have made the same shall be liable as above provided for the taxes, but shall have no lien in his or its favor for such taxes.

THE PORTLAND ELEVATOR CO.'S ELEVATOR AT PORTLAND, ME.

The Grand Trunk Railway Co. is making a vigorous effort to secure the carrying of a portion of the imports and exports of the United States and Canada. It has established extensive yards at Portland, Me., and built a 1,250,000-bushel elevator to handle export grain. Portland has a good harbor; by some it is claimed to be one of the best on the Atlantic Coast.

The elevator is thoroughly equipped with all the modern conveniences for handling export grain. It is 221x97½ feet, and 160 feet high. The engine house is of brick 80x41 feet, and has a steel plate smoke stack lined with brick, 13 feet in diameter at the base, and 161 feet high. The foundation is formed by building granite and concrete piers, and walls on piling. The bins, which are 66 feet deep, are supported by heavy posts. The basement extends under the entire house, and is well ventilated and lighted, and has a concrete floor. The basement

charge dust into the furnace where it is burned. A complete system of fire protection is furnished by a standpipe and hose connection at many points about the house. A duplex pump in the engine room supplies water.

There are two stairways leading from the first story to the cupola, one at each end, and at one end is a passenger elevator, which runs from the first story to the top of the elevator.

Along the side of the elevator is a belt gallery which leads to two belt galleries running along each side and the entire length of the Atlantic wharf. These galleries are 50 feet above the wharf. Two systems of belt conveyors traverse these galleries, and are supplied with iron trippers, which will trip grain into any hatchway of a vessel. The shipping capacity is 30,000 bushels per hour.

The power plant consists of a battery of four 60-inch boilers, and a pair of horizontal non-condensing Corliss Engines, 24x42 inch stroke. All power is transmitted by means of rope drives, and all machinery which is required to start or stop while the shafting is in motion is provided with friction clutches.

The machinery for the plant was furnished by the Webster Mfg. Co. of Chicago. The elevator is covered with galvanized iron. John S. Metcalf & Co. of Chicago were architects and engineers. The house was built last winter, being completed in March.

CHICAGO'S GRAIN TRADE FOR 1897.

The year just closed marks a new record in Chicago's grain trade. The conditions were favorable for an increase, and the reports show that the receipts of wheat, corn, oats, rye and barley amounted to 283,505,000 bushels, against 242,408,000 for 1896, while the shipments amounted to 240,310,000 bushels, against 206,863,000 in 1896. There was an increase for 1897 over 1896 of 35,006 in the number of cars of grain inspected; of 42,964,991 bushels in the receipts of flour and grain; of 33,013,620 bushels in the shipments of flour and grain; of 8,754,745 bushels in the wheat receipts, and 1,781,819 in the shipments; of 24,025,041 bushels in the corn receipts, and 9,743,486 in the shipments; of 8,360,973 bushels in the oats receipts, and 22,547,104 in the shipments. The only decrease was in the Board of Trade clearings, and this was very small.

The receipts of flour, grain, seeds, etc., at Chicago for 1897, with comparative receipts for 1896, were as follows: Flour for 1897, 2,947,005 barrels; for 1896, 2,531,995 barrels. Wheat for 1897, 28,087,147 bushels; for 1896, 19,933,402 bushels. Corn for 1897, 116,747,389 bushels; for 1896, 92,722,348 bushels. Oats for 1897, 118,086,662 bushels; for 1896, 109,725,689 bushels. Rye for 1897, 3,388,751 bushels; for 1896, 2,530,336 bushels. Barley for 1897, 17,195,744 bushels; for 1896, 17,496,381 bushels. Timothy seed for 1897, 57,097,591 pounds; for 1896, 61,772,523 pounds. Clover seed for 1897, 13,007,821 pounds; for 1896, 11,315,209 pounds. Other seed for 1897, 8,984,445 pounds; for 1896, 10,489,511 pounds. Flaxseed for 1897, 4,976,209 bushels; for 1896, 10,299,525 bushels. Broom corn for 1897, 9,952,065 pounds; for 1896, 16,227,885 pounds.

The shipments of the same articles for 1897 were as follows: Flour for 1897, 2,736,211 barrels; for 1896, 2,854,832 barrels. Wheat for 1897, 26,669,466 bushels; for 1896, 25,888,647 bushels. Corn for 1897, 104,666,466 bushels; for 1896, 82,119,852 bushels. Rye for 1897, 3,800,872 bushels; for 1896, 1,374,509 bushels. Barley for 1897, 7,717,351 bushels; for 1896, 9,767,708 bushels. Timothy seed for 1897, 46,417,248 pounds; for 1896, 63,368,857 pounds. Clover seed for 1897, 17,230,467 pounds; for 1896, 11,717,500 pounds. Other seed for 1897, 24,192,619 pounds; for 1896, 19,125,953 pounds. Flaxseed for 1897, 2,859,493 bushels; for 1896, 5,734,654 bushels. Broom corn for 1897, 8,969,117 pounds; for 1896, 11,670,021 pounds.

Young Mr. Leiter confidently expects to raise at least 9,000,000 bushels of wheat right in Chicago this winter.—Chicago Post.



NEW ELEVATOR AT PORTLAND, ME.

in which such elevator, warehouse or storage house is located, showing the amount of grain in such elevator, warehouse or storage house on the 1st day of May, and also the certificates held by him for grain to be delivered, and the assessor shall then proceed to assess said grain in the name of the person or company making such return, either as agent or owner as the return may show, in like manner as other personal property is assessed.

(B) Any person or company required by this section to make return to the assessor, who shall fail or neglect so to do within the time mentioned, shall forfeit and pay to the town in which such elevator, warehouse or storage house is located a sum not less than \$1,000, nor more than \$5,000, for every such failure or neglect, to be recovered by said town in an action of debt or assumpsit in any court of competent jurisdiction, and the assessor in the absence of such statement shall, from the best information he can obtain, make an assessment upon such.

(C) Any person or company making any such return as hereinbefore required shall be liable in a sum not exceeding \$10 for every \$100 worth of grain returned for the taxes assessed upon said grain, and when the grain does not belong to such person or company he or it shall have a first lien upon such grain for said taxes, said lien to the extent of \$10 for every \$100 worth of grain returned to attach to said grain from May 1.

If the taxes, when extended, shall not amount to \$10 on the \$100 the owner of the grain shall in all cases be entitled to the difference from such person

contains a system of cross-belt conveyors by which grain can be taken from any of the bins. Two receiving tracks extend through the house, and ten receiving legs, with an elevating capacity of 8,000 bushels an hour, take the grain from the silos to the cupola. The grain is unloaded from the cars with Clark Power Shovels. There are also five loading spouts equipped with Metcalf Bifurcated Loaders. In the first story of elevator or working floor is a car puller with two drums arranged for pulling cars on both tracks at the same time, by means of wire cable.

The first floor of the five-story cupola is the distributing floor. It contains 20 Mayo Trolley Spouts and 12 Telescope Trolley Spouts. The Mayo Spouts distribute the grain from the scale hoppers, and the Telescope Spouts distribute grain from a reversible belt conveyor, which runs the full length of the second floor of the cupola. This conveyor is supplied with an automatic traveling tripper. The third story of the cupola contains ten 1,200-bushel Fairbanks Hopper Scales. The fourth is the garner story. Along one side of this story, extending the full length of the building, is a line shaft from which power is taken to drive the elevators. The top story is occupied by the elevator heads and the spouting from them to the garners. Each elevator head is provided with a switch head so that grain may be spouted into either of two garners. The entire ten elevators may be used for either shipping or receiving.

There is a complete system of pneumatic sweepers throughout the entire house, and is arranged to dis-

GRAIN ELEVATOR AT COPEN-HAGEN.

The readers of this journal are interested in improved appliances and methods pursued in the handling of grain; and we know that this interest is not confined to the buildings and methods of our own country, but extends to those of other countries as well. Accordingly, it has been our custom from time to time to present illustrations and descriptions of notable grain warehouses in other parts of the world. We give on this and the following page a perspective and sectional view of the grain elevator of the Kjøebenhavns Frihavns Aktieselskab in Copenhagen, Denmark. It stands on the end of a pier 187 feet wide. The quays on each side are almost 43 feet wide, and each of them is provided with rail-

floors with a filling of sheets of asbestos on wooden beams, iron beams and pillars.

The elevators designed for unloading the grain from vessels have not yet been built, and so for the present it is raised by means of the hoisting devices of the vessel, which throw it into spouts that conduct it to the carrier belts. These belts consist of impregnated hemp, are 25½ inches wide, and with a speed of 6 feet 6 inches can carry 60 to 70 tons per hour. The grain carried in by the belts is raised by elevators 131 feet long, which have a velocity of 28 feet, and are capable of raising 60 to 70 tons per hour. They are provided with buckets 8½ inches wide and 4½ inches high. The space devoted to the machinery is fireproof and elegantly finished.

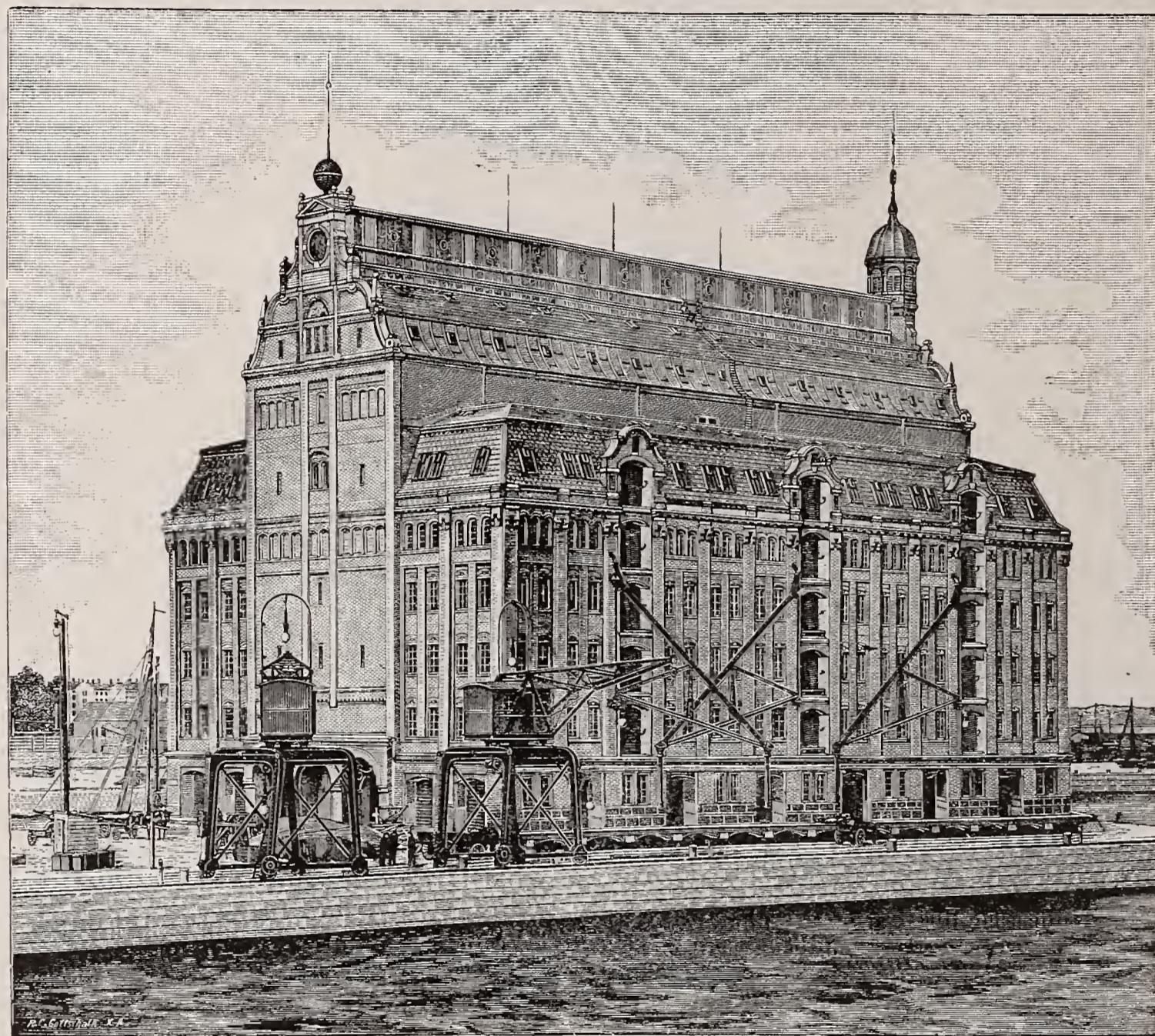
From the elevators the grain passes on two box scales, each of which weighs one ton at a time.

and stored in the desired bin or floor of the building. A similar arrangement serves for circulating the grain and loading the vessels.

If the grain is to be loaded on a vessel, the adjustable loading spouts are set in operation, and these, with the vertical hanging tubes, deliver the grain directly to the hold of the vessel. If this is to be reversed, the next spout is opened by turning a funnel-shaped head. When it is discharged from the elevator, it is subjected to a current of air which blows off the fine dust and chaff; then it passes through the adjustable funnels and the proper spouts back to the desired floor.

A cleaning machine is provided for the thorough cleaning and separation of the coarser parts.

All of these machines are driven by electricity from the central harbor station, which furnishes 100 horse



GRAIN ELEVATOR AT COPENHAGEN—EXTERIOR VIEW.

road tracks that are connected at the ends by turntables and cross tracks, to facilitate the moving of the portable elevators shown in cut.

A tunnel runs along the quay which is designed for the reception of pipes, electric cables, etc., and into this tunnel six cross tunnels open on each side, which contain twelve carrier belts that can be loaded from openings in the main tunnel when the iron covering is removed.

The building is 170 feet 7 inches long, 103 feet 4 inches broad, 42 feet 7 inches of which breadth is taken up by the bins, and 128 feet high from the cellar floor to the roof. The bins, thirty-six in number, have a height of 65 feet 7 inches, a length of 15 feet, and a breadth of 12 feet 5 inches, and each one holds two hundred tons. The funnel-shaped floors are made of beton laid between I beams, and rest on wrought iron pillars. The walls of the bins are made of boards secured to standards, only the outer walls of the two groups, each of which consist of 18 bins, being fireproof. The rooms of the different stories, or lofts, are provided with double

One man takes charge of two scales. While one is being filled the other is tared and emptied by means of a lever on the box; then, by means of a second lever, the supply is admitted to the other box, and this one is tared. Sixty boxes are weighed per hour; that is, one per minute. In order to avoid the dust which arises when some kinds of grain are weighed, the scale holders are uncovered and air is sucked through the small opening whereby the escape of the dust is prevented.

The weighed grain falls into a hopper, which conducts it to the next story or bin, or, if it is to be stored at a greater distance from the scales, it is conducted to the proper belt, which carries it to the desired place. Each belt has two deflectors which direct the grain to the right or left in the spouts or to the belt again. These deflectors are moved mechanically by chains, the movement of which is regulated by a pull on the guide rope. By means of this arrangement and the conducting spouts on the different stories the work is carried on; the grain is unloaded from the vessels, weighed,

power, driving five primary dynamos at 450 volts. The distribution of the electric energy is accomplished by means of the triple conductor system at 2x250 volts. In the bins there are six electric motors of 15 horse power, for operating the elevators, one for the upper carrier belts and the exhauster, two in the cellar for operating the belts there, and one for the cleaning machine; ten in all.

N. B. Hieatt, Willis, Kans.: "The "American Elevator and Grain Trade" cannot be praised enough for the good work it is doing for the regular or legitimate grain buyer. No grain buyer should be without it in his office. I consider it would be cheap at five times the price."

The Grain Dealers' National Association has commenced a good work in the interest of all regular grain dealers. Henceforth, it will receive and compile reports of shortages at terminal markets and when any elevator becomes afflicted with a chronic case of shortages, a remedy for the trouble will be demanded.

CLEAN BILLS OF LADING FOR NEBRASKA SHIPPERS.

J. B. Mitchell of Seward, Nebr., introduced at the last session of the Nebraska Legislature, probably with the intention of doing country shippers a favor, a bill providing for track scales and clean bills of lading. The bill was H. R. No. 244. It failed to pass at the last session, and may be reintroduced at the next session. If so we trust no grain man will be so near-sighted as to support it. It is entitled an act to facilitate the handling of grain and merchandise on all railroads operating in the state of Nebraska, and provides as follows:

Section 1. All railroad companies owning or operating lines of railroad in the state of Nebraska as common carriers are hereby compelled to erect and

Sec. 5. The shipper shall be and is required to pay for each receipt or bill of lading issued to him as provided in this act the sum of 50 cents for each carload of grain or seeds.

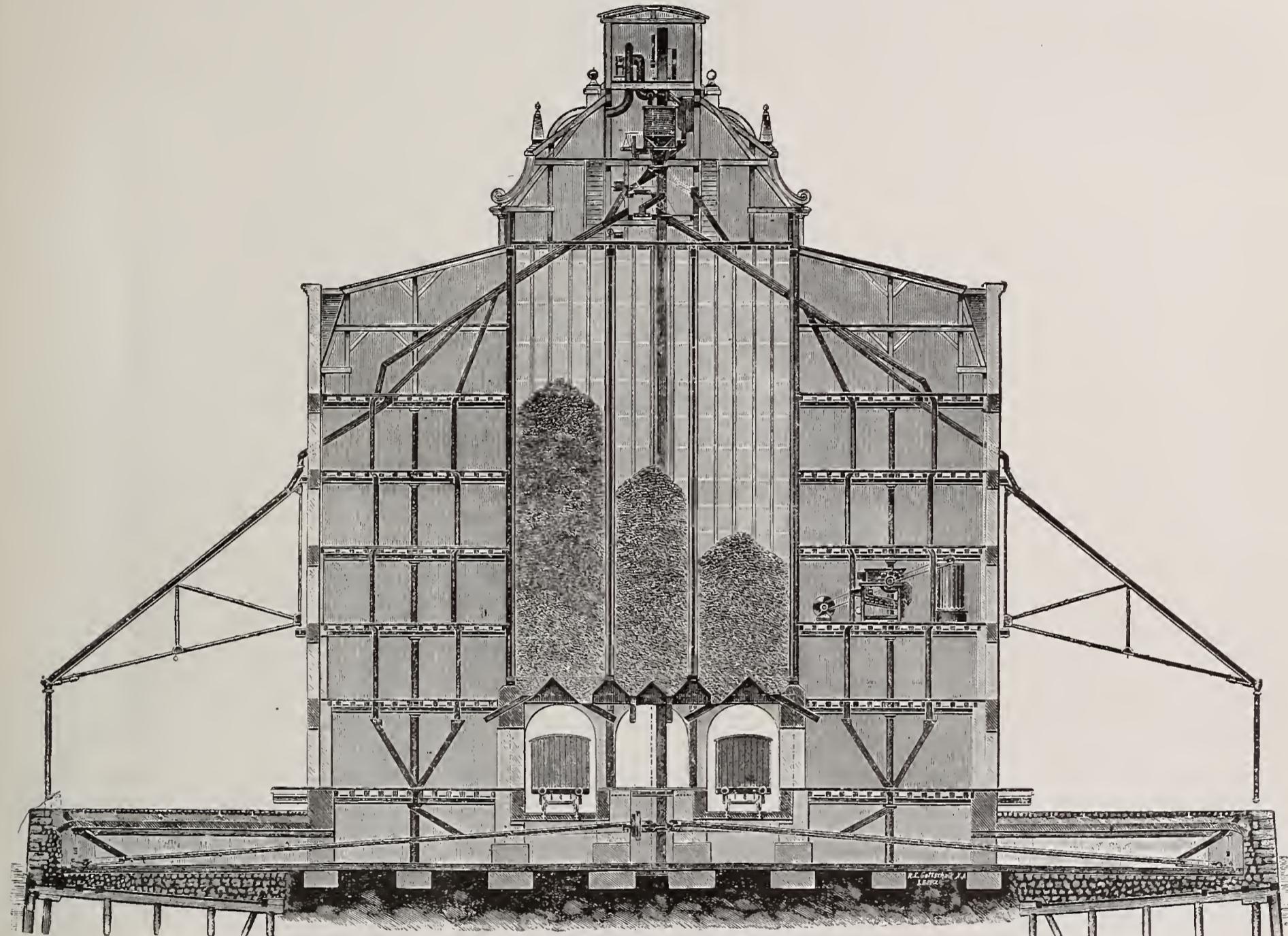
Sec. 6. That all incoming trains, arriving at stations coming under the provisions of this act, containing full carloads of coal, grain, seeds, potatoes, or other merchandise sold or bartered by bushel or pound, shall be weighed by the agent or other authorized representative of railroad company, a record made of the same, as provided in sections two (2) and three (3) of this act.

Sec. 7. The railroad company shall receive as compensation 50 cents from consignee for each car or cars.

Sec. 8. The penalty for violation of each and any of the provisions of this act shall be, upon conviction,

LOCUSTS IN ARGENTINA.

The people of North America have little conception of the extent of the locust plague liable to bring destruction to crops in the Argentine Republic. The Buenos Ayres Standard of October 25 makes the following report: A Rosario telegram states that samples of wheat have been received, taken from the new growth on ground once eaten over by the locusts. The destruction of the flying locusts and their eggs continues to be actively carried on throughout the province, and all the necessary preparations are being made for the destruction of the hoppers as soon as they appear. In Corrientes, at least in that part of the province surrounding San Roque, the large swarms of locusts that appeared last week passed on southward without doing



GRAIN ELEVATOR AT COPENHAGEN—SECTIONAL VIEW.

maintain track scales at all stations where 200 cars of grain have been shipped in any one year subsequent to five (5) years ago.

Sec. 2. When a shipper orders a car or cars from the railroad company to load with any kind of grain or seed, it shall be the duty of the agent or representative of the railroad company from whence such car is ordered to weigh such empty car, and record the weight in a book provided for such purpose.

Sec. 3. After notification by the shipper that such car or cars have been loaded, the agent shall weigh such carload of grain or seed, and record the same in books, as provided above, and thereupon shall deliver to the shipper a receipt or bill of lading, showing the exact net weight contained in each car of grain or seed.

Sec. 4. The railroad company shall be and are required to deliver a like amount of grain to the destination point, "less an allowance of one-half of one per cent. of net contents of each car, as natural and unavoidable shrinkage."

tion, not less than \$50 or more than \$500 for each offense.

To start with track scales are not desirable at country points. The knives are dulled so quickly by the cars running over the platform that the scales will not weigh accurately, and it is not convenient to have them sharpened frequently.

The clean bills of lading can be secured by a state law only for shipments which do not go outside the state. The regulation of interstate commerce rests with Congress not the state.

A. A. Truax, Mt. Vernon, S. Dak.: I get more knowledge from the "American Elevator and Grain Trade" than from any other source. All grain men should take it.

James Johnston, a well-known grain dealer at Cassopolis, Mich., loaned \$20 to a stranded individual out in California in 1870. And the stranded individual has just repaid the debt after a lapse of 28 years. He proved to be honest, to be sure; but not very speedy.

any damage, but in this same district the cattle and horses are said to have suffered severely on account of the drought. A Concordia message says that the East Argentine Railway has offered to transport the 11th battalion of the line free to Azia Grande for the purpose of destroying the locusts that have recently appeared there. At Gualeguay the river has overflowed its banks and flooded many of the fields where the locusts have laid, destroying the eggs. The Central Commission has just named a provisional commission for Mendoza, and is considering a request for \$50,000 more from the Rosario Commission. Generally, in the Sante Fe colonies, the colonists are reported to be in the best of spirits on account of the rains, and the crops are showing the good, resulting from the increase of moisture in the ground. The number of eggs being destroyed in many of the colonies is something startling, and gives a good idea of the untold billions of locusts that would soon have been jumping around in a few days and sharpening their appetites for a feast on the growing crops.

SONG OF THE BUCKETSHOP MAN.

Little slumps in barley,
Little gains in wheat.
Make the market harder
All the time to beat.

But the little lamblet
Money still will bring,
Taking chances on the
Other man's sure thing.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

SOUTH DAKOTA GRAIN DEALERS SHOULD ORGANIZE.

Editor American Elevator and Grain Trade:—The grain dealers of this state seem rather slow about organizing. From the way the profit in the business is disappearing, I should think they would feel inclined to fall in line pretty soon. If someone would start it, I think the dealers would soon follow. All other lines are organized for protection; why not the grain men?

Very truly yours, A. A. TRUAX.
Mt. Vernon, S. Dak.

OPPOSED TO LEGISLATION AGAINST CORN AS A FOOD PRODUCT.

Editor American Elevator and Grain Trade:—It looks to us now as though it would be necessary for the farmers of the corn states, and the newspapers representing them, to take up the cudgel and fight for the use of white corn as a food product. It seems highly probable that bills will be introduced in Congress this winter, placing a practically prohibitive tax on the blended product of wheat and corn flours.

It is a fact that such a blended flour is thoroughly wholesome, is satisfactory to the consumer, and can be furnished at a reduced price, and is of great benefit to all parties interested in raising and handling white corn.

All who are in any way interested should present this to their congressmen in its proper light, as early as possible. We believe that a thorough discussion of the matter through the press would result in sensible conclusions, beneficial alike to the producer and consumer.

THE DECATUR CEREAL MILL CO.
Decatur, Ill.

SHORTAGES AT FOUR MARKETS.

Editor American Elevator and Grain Trade:—I notice in your last number the reply of Geo. F. Stone, secretary of the Chicago Board of Trade, to Mr. Ulrich of Springfield, Ill.

I have been in the grain business for ten years, and during the last seven years have shipped a large part of my grain to Chicago. We used to do a large Baltimore and Philadelphia business, but as our weights were so bad, we discontinued shipping there altogether.

I give below a statement of the shipment of some 90,000 bushels of corn:

Shipped to	Bushels ship'd.	Bushels reported.	Bushels short.	Estimated No. of cars.	Av. shortage per car.
Chicago, Ill....	27,223	27,193	30	54	5-9
Rockford, Ill...	33,921	33,804	117	67	1 5-7
Kankakee, Ill...	5,037	5,034	3	10	3-10
New Orleans, La	26,554	26,807	47	53	8-9
Total.....	93,035	92,838	197	184	1 1-14

This grain was all weighed out of our elevator, from a Fairbanks Hopper Scale, by an experienced weighman. Every car of grain handled by us since Sept. 1, 1895, was weighed in hopper scale before being loaded into car.

We note also what Mr. Stone has to say about the grain dealers using shipping tags. We have tacked such tags on our cars, saying we were members of the Illinois Grain Dealers' Association, and that the contents of the car was so much. Many of them came back with exactly the same weight, while many were short. We therefore considered it bad

policy to use these weight cards, as before using them some overweights were returned that helped out the short ones considerable.

Yours truly, O. A. MEANS & CO.
Anchor, Ill.

SHORTAGES AT TWO CHICAGO ELEVATORS.

Editor American Elevator and Grain Trade:—We note carefully Secretary Geo. F. Stone's remarks in the December number of your valuable paper, and note particularly that the weighing committee has found that all the errors can be traced to the shippers and none at destination elevators, namely, the Indiana and the Wabash elevators in Chicago.

We also note that Mr. Stone reports that the committee compared weights in Chicago on grain coming from Illinois Central Railway with those coming from the Wabash Railway. Our complaints are for grain over the Wabash Railway and going to Indiana and Wabash elevators in Chicago.

If the weighing committee wanted facts bearing on the subject from others, why didn't it get these facts from dealers along the Wabash Railway and connecting lines, who were shipping to the Wabash and Indiana elevators, and have them send them in lists of their weights and compare with Chicago weights at Indiana and Wabash elevators? Our firm has had shipments to the following elevators in Chicago the past few months which were satisfactory, namely, to South Chicago Elevator D, Alton Elevator and Calumet Elevator A.

We note the committee takes exceptions to our remarks that the grain "was almost invariably weighed in hopper scales. We find, upon inquiry, that all the cars from Indianapolis, Ill., to Wabash and Indiana elevators were weighed on hopper scales. All from Lanesville, Ill., to Wabash and Indiana elevators were weighed on hopper scales. All from Buffalo, Ill., were weighed on hopper scales excepting three cars November 23d and 24th, which were not weighed at all and of which no complaint was made. The Dawson corn was all weighed in hopper scales; the Curran corn was all weighed in hopper scales; the Bates corn was all weighed in hopper scales; all the cars from New Berlin to Wabash and Indiana elevators were weighed in hopper scales with only one exception. There was no corn on these shipments from Waverly.

Regarding car No. 35,014 from Indianapolis November 5th, our weights on this car were 899 bushels and 31 pounds, and Chicago weights 900 bushels, or 22 pounds more, and not 90 bushels and 20 pounds over.

Regarding car No. 11,439 from New Berlin September 21st, our records show this car was weighed at New Berlin 35,290 pounds, and not 30,270 pounds, as the committee states. We find we shipped no corn during this period from Riverton to the Wabash and Indiana elevators. Also the corn from Sanger was not short in weight.

In regard to the cars which were marked "leaky" we were not aware of this, but we note that these were few and far between. The Dawson car No. 15,495, which the committee mentions as overrunning, was weighed the day our Mr. A. W. Lloyd was at the elevator, when the total shortage was 250 pounds on 23 cars of about 16,500 bushels. The only overruns, we believe, occurred that day at the Indiana Elevator.

We have found, in comparing our shipments since July 1, 1897, to November 1, on 744,683 bushels of corn shipped to Philadelphia, Toledo, Detroit and other eastern markets, and also to other elevators in Chicago—not to Indiana and Wabash elevators, Chicago—that we have a shortage of 1,198 bushels 19 pounds, or 1½ bushels per 1,000 bushels; while on 237,153 bushels shipped to Indiana and Wabash elevators, Chicago, during the period beginning July 1, 1897, and ending November 19th, we had a shortage of 2,118 bushels, or 8.9 bushels per 1,000 bushels, or close to six times as much.

We note also the weighing committee make no mention of the removal, after our Mr. Lloyd was there, of one of the weighmen, on account of the excessive use of morphine.

We do not say that our men are any nearer infallible than those in Chicago—at Indiana and Wabash elevators—but we do claim that our men are

no more liable to make mistakes in shipments to these two particular elevators than to other elevators in Chicago or in eastern markets to which the hand is sometimes five times as far and on the way to which the grain is often transferred. There is no transfer on our Chicago shipments.

Now farther to show our position is properly taken, we give the following comparisons of weights received from Theo. P. Baxter: Clarksdale—25,850 bushels corn, shipped to Wabash and Indiana elevators, Chicago, from July 1, 1897, to December 31, 1897, weighed out 25,662 bushels and 28 pounds, or an average of 7.27 bushels per 1,000 bushels. From Clarksdale during the same period Mr. Baxter shipped to Decatur, Clarksdale weights 43,500 bushels corn; Decatur weights, 43,398 bushels and 12 pounds corn, making a shortage of only 2.35 bushels per 1,000 bushels.

We have from S. L. Hamilton of Ashland, Ill., weights of 66 cars corn loaded at Island Grove for himself, of which all but three cars went to Wabash and Indiana elevators, Chicago, on which the home weights were 59,522 bushels and 28 pounds, and Chicago weights were 57,495 bushels 22 pounds, making a shortage of 2,027 bushels and 6 pounds. Of these cars one car, No. 61,173, was in a wreck, and lost 560 bushels and 10 pounds, leaving a total shortage, outside of the wrecked car, of 1,515 bushels and 52 pounds, or 25.46 bushels per 1,000 bushels average shortage. The three cars mentioned were weighed at the following elevators: Car No. 15,055 at the Sibley Elevator; car No. 71,571 at the Wabash, St. Louis & Pacific Ry, and car No. 11,259 at the Forest Hill Elevator.

I suppose all of this has no "logical bearing" on the question. In talking with a traveling man who traveled over the Monon Route last summer, he said he heard the same complaint all along that route in regard to shortages. In talking with another traveling man from Chicago, who had been along the Wabash road since this has been agitated, he said he had heard the same complaint along the Wabash, but I presume none of these complaints have any "logical bearing" on the question.

E. R. ULRICH JR,
Springfield, Ill.

PETITION FOR LOWER RATES ON GRAIN.

Editor American Elevator and Grain Trade:—The Executive Committee of the Grain Shippers' Association of Northwest Iowa has instructed its officers to draft a memorial to be presented to Congress and the Iowa State Legislature as soon as a number of signatures have been attached to it. It is as follows:

To the Honorable Senate and House of Representatives of the United States:

The Grain Shippers' Association of Northwest Iowa, composed of grain shippers representing every county, and, practically, every grain shipping point in that region, respectfully memorialize your honorable body as follows:

Northwest Iowa is an agricultural region engaged largely and almost exclusively in the production of corn, wheat, oats, rye, barley and other food products. The market for these products is Chicago and points east thereof. The price of these products received by the farmers and dealers is, to a great extent, controlled by the facilities for and cost of transportation to market. The means of transportation to these markets is solely by the various railway lines penetrating Northwestern Iowa. The regions adjacent to Kansas City, Missouri, and St. Paul and Minneapolis, Minn., are engaged to large extent in the production of the same kinds of grain as are raised in Northwestern Iowa, and this grain is transported by rail and sold in the same markets in competition with the grain products of the region represented by this Association. The distance and cost and means of transportation from these competing points to the common market is practically the same. The rates fixed by the railway companies for the transportation of grain from Northwestern Iowa are now and for many years have been practically twice as high as the charge for transporting the same kind of products from these competing points. This discrimination in freight tariffs against the products of Northwestern Iowa, and in favor of like products from competing points, has resulted in the demoralization of the grain trade, and in annual depreciation of many hundreds of thousands of dollars in the returns to the farmers of Northwestern Iowa for their crops.

For many years, there has been a continuous and gradual reduction in the costs and charges of trans-

portion of various kinds of freight moved over the railway lines penetrating Northwestern Iowa. The freight charges on dry goods, stoves, hardware, furniture, liquors, and other articles of merchandise and manufacture have been constantly lowered, while the transportation charges for grain products have been kept at substantially the former figures and left without benefit of this practically uniform reduction in freight charges. The freight charges exacted for the transportation of the articles of merchandise and manufacture above referred to, taking into consideration their value, bulk, cost, care and danger in their transportation, are proportionately much lower and wholly disproportionate to the charges for transportation of grain. This has resulted in an unjustifiable discrimination against the food products and their producers and dealers.

In the complaint filed by this Association before the Interstate Commerce Commission, the foregoing facts were conceded by the traffic managers of the railways, and it was admitted that these freight charges were not based upon any principle recognized as rightful in the formation of tariff sheets, and that the railways simply exacted from the grain traffic such rates as they could get. This condition of affairs has resulted, not only in the discrimination against the locality represented by this Association, and in favor of its competitors, but a discrimination against food products and their production and sale. Appeals to the Interstate Commerce Commission and to the railways have been fruitless of results in putting an end to this unjustifiable discrimination.

In 1890, in compliance with a resolution of the United States Senate, the Interstate Commerce Commission made investigation of the transportation charges on food products to the seaboard. It held investigation at various points in the Northwest, resulting in a finding that the rates charged were unreasonable and fixing maximum reasonable charges to Chicago and to the Mississippi River, which were greatly less than the charges exacted by the railway companies. For a few months, this finding of the Commission was observed by the railway companies, but soon thereafter the old rates were restored. Since that time, there have been slight fluctuations in transportation charges, but during the whole time, up to and including the present, there has been maintained the same proportionate excess of charges for transportation of grain from Northwest Iowa over the charges for transportation from Kansas City and Minneapolis points, and the same disproportionate excess of charges for the transportation of grain over the charges for transportation of articles of merchandise and manufacture.

The Federal Courts, through their construction of the provisions of the Interstate Commerce Law, have gradually shorn both the Interstate Commerce Commission and the courts of the powers which they were supposed to possess under the provisions of that law, so that there is now no adequate remedy, save by the slow and expensive process of courts in suits to recover overcharges, against unreasonable charges or discrimination in freight tariffs of the kind from which Northwestern Iowa has so long suffered. To avoid the discrimination complained of against Northwestern Iowa, and in favor of other shipping points and the discrimination against the grain traffic and in favor of other classes of freight, the grain rates from Northwestern Iowa to Chicago should not exceed 12 cents per 100 pounds, and to east bank Mississippi River, 10 cents per 100 pounds. If the receipts of the railway lines from their freight traffic are not unreasonably high, it is manifest from the foregoing that an undue proportion of these receipts is received from the grain traffic of Northwestern Iowa, and an undue proportion of the burden of freight rates is placed upon this locality, and the traffic in which it is engaged. This discrimination against locality and traffic is contrary to both the letter and the spirit of the Interstate Commerce Act.

All of the railway lines entering Northwestern Iowa are, and have been, members of associations expressly or impliedly formed to maintain freight rates, and this locality and the grain traffic have had no relief through competition. Through the inefficiency of the remedies provided by law as construed by the courts, we have been practically without remedy against this discrimination, and it has resulted to the injury of every business interest in the great territory in which this Association is engaged in business.

Without engaging in warfare against any business or interest, fully recognizing the necessity and utility of railway transportation, and conceding the right of the transportation interests to receive fair compensation for service rendered, we most earnestly protest against our locality and traffic being made the victims of discrimination and against their being compelled to bear more than a just proportion of the necessary burdens of transportation.

Wherefore, you are respectfully but urgently requested to make investigation of the facts herein complained of, that existing laws may be so amended that discrimination of the kind and character practiced against Northwestern Iowa may be made unquestionably illegal, that the jurisdiction of

the Interstate Commerce Commission may be broadened, and its powers made more effective, and that prompt and efficient remedy may be given to producers and shippers against the exaction of unreasonable or discriminating freight charges.

Very truly,

F. D. BABCOCK, Secretary.

Ida Grove, Iowa.

CHANGES IN LIST OF REGULAR DEALERS.

Editor American Elevator and Grain Trade:—Please publish the following changes in the list of regular grain dealers of Illinois compiled by the Illinois Grain Dealers' Association:

F. Haitz at Panola, Ill., has been succeeded by B. F. Slenker.

H. Eversole has been succeeded at Fithian, Ill., by A. N. Gordy.

Garrison & Fleming have succeeded Jackson & Cayitt at Woodland, Ill.

M. E. Howrey & Co. are now located at Kemp, Ill. H. Eversole is building an elevator at Broadlands, Ill.

J. H. Hougland has sold his elevator at Mattoon, Ill., and retired from business.

C. H. Jones at Champaign, Ill., is now styled C. H. & P. G. Jones. R. G. Jones was formerly located at Cisco.

Phillips Bros. of Parnell have purchased the plant of S. M. Postlewait & Co. at Milmine, Ill.

An error was made last month in reporting the firm of Fleming & Chipps at Sullivan, Ill., as being changed to Fleming & Glines. The firm at Sullivan remains the same, while Fleming & Glines are located at Cushman, Ill.

Yours truly, B. S. TYLER, Secretary.
Decatur, Ill.

WHEAT AND CORN.

It is not easy to explain why, in the common conception, wheat should be ranked in importance ahead of Indian corn. From no point of view can wheat be regarded as the peer of maize, except that it realizes a higher price. The corn crop occupies 82,000,000 acres; wheat only 34,000,000 acres. The quantity of the product of corn now averages about 2,000,000,000 bushels; that of wheat about 450,000,000 bushels; while the value of the former averages \$600,000,000, and of the latter, on an average, from 1890 to 1895, only \$300,000,000.

In the economy of domestic consumption corn holds a far more important rank than wheat. Among a largely preponderant part of our population it furnishes a variety of wholesome articles of diet. It is the basis of our hog product, the exports of which are valued at about \$90,000,000 per year. It is also a leading article of food for cattle, exceeding all other grains in cheapness and feeding qualities. It is the basis of our production of distilled spirits, of starch and of glucose.

And yet the utilities of this plant have as yet been very imperfectly exploited. It is, perhaps, quite safe to say that there is not any part of it which cannot be turned to remunerative uses; and yet comparatively little really valuable utility is found for it outside the resources of the grain. The leaves, husks and cobs are virtually wasted, and the stalks are rather a nuisance to the farmer than of any value. Everything is thrown aside to get the grain; and yet, properly used, the discarded matters could be made to yield a value equal to that which is utilized. There are possibilities connected with this plant which would yield the farmer \$40 per acre for his crop, where he now gets for the corn barely \$14. Unless we are greatly mistaken, we shall soon see this plant shown to be capable of yielding sugar and other correlative products at very much below the cost at which raw sugar or glucose can be produced from any other existing sources of those products. It has been demonstrated by competent scientists who have thoroughly investigated the physiological characteristics of the plant and its structural conditions at various stages of its growth, that, in addition to its present various uses, it may be made to yield products of immense commercial demand, and which would very largely add to the profitability of American farming in those sections where corn can be raised. We are aware that

these statements will be regarded with incredulity; but they are based upon more than possibilities; and in our judgment may be reasonably classed among industrial probabilities likely to be realized in the United States.—New York Journal of Commerce.

DOTS. AND. DASHES

The loading fee for country elevator men is no longer a thing of the future.

Good as wheat is a familiar phrase, but probably young Mr. Leiter would as soon have the money.

If the country elevator men expect ever to obtain the loading fee for themselves they must work together.

Mr. Joseph Leiter, grain merchant, says an exchange, is the owner of the best advertised stock of wheat on earth.

One of the interesting items in the agricultural appropriation bill is a provision for \$10,000 for an agricultural experiment station in Alaska.

The Grain Dealers' National Association has taken steps to have ordinances enacted in the towns of members, which will protect the regular dealer from the transient shipper.

The Cincinnati Price Current has just commenced Volume 55. During nearly 26 years of its existence it has been directed by its present proprietor, and Mr. Murray seems good for another quarter century at least.

Auditor Minor of Minnesota has assessed the Peavy Grain Line Co. \$8,400 as back taxes for the years 1893-94-95-96 on an estimated valuation of \$100,000 for each year. The matter will probably be taken into court.

An Illinois farmer has found a perfect ear of corn showing the kernels growing in an uneven number of rows. He is now looking for the eastern agricultural society which, some years ago, offered \$1,000 for a perfect ear.

Grain shipments by rail from Indianapolis, Ind., during the year 1897 were as follows: Wheat, 39,900 bushels; corn, 375,600 bushels; oats, 290,000 bushels; rye, 5,400 bushels; barley, 1,200 bushels; broom corn, \$10,000 pounds.

The Chamber of Commerce of Tacoma, Wash., gives among the foreign and coastwise exports from that port for 1897 the following: Wheat, 4,285,008 bushels, valued at \$3,573,612, and 313,737 barrels of flour, valued at \$1,110,068.18.

The Chicago elevator managers have given the notice required by law the first of the year, to the effect that storage rates on grain will remain as they have been for several years, at $\frac{3}{4}$ cent for the first ten days, and $\frac{1}{4}$ cent for each additional ten days.

The Minnesota State Weighing Department at Minneapolis consists of 55 employes, namely, one weighmaster, one first assistant weighmaster, two clerks, one scale expert, one stenographer, and 49 assistant weighers. It is now weighing at 38 elevators, 24 mills and 4 railroad yards.

A story is current that the farmers of Allen County, Ohio, have been bunkoed by a man who went through that section exhibiting an enormous ear of corn from which he sold kernels for seed at choice prices. The ear was made from several smaller ears carefully cut up and ingeniously glued together.

A movement is on foot among the large elevator companies of the Northwest to induce the farmers to secure a complete change in seed wheat next spring. They believe if seed wheat from the Saskatchewan or some other northern section is used, the Dakotas will again produce a more valuable grade of wheat.

A man by the name of C. A. Liddy has been arrested at Mt. Pleasant, Mich. He went to Binton and represented himself as a produce buyer from Detroit. He offered high prices for grain, etc., and soon filled several cars, which he paid for by checks signed C. A. Liddy & Co., Detroit. The cars were rushed out, but the checks were not honored, with the result to the buyer as above.

SHORTAGES AT MINNESOTA TERMINALS.

The State Weighmaster for Minnesota, Charles M. Reese, in his annual report to the Railroad and Warehouse Commission, gives some interesting information regarding shortages in the Northwest, which shows that even Minnesota's well regulated weighing department is troubled with shortages.

The weighmaster states that a thorough investigation of all shortages has been made, the number of which is provokingly large. I attribute a large number of these shortages to defective methods of weighing, and carelessness in handling. There is, however, one mysterious case. May 13 a car of wheat was consigned to this city from Atwater, Minn. When it was weighed here it was short 400 bushels. Every effort to locate the missing wheat has been made. It is not possible that it could have leaked from the car. The case is a mysterious one. There is a possibility that the wheat line in the car may have been placed wrong. We are endeavoring to have the car reloaded, but it is now in service in Montana. The case has so far baffled us completely.

"I am frank to confess that some complaints of country shippers are justifiable, for our weighers are not infallible. Shortages are caused by transposition of numbers, leaky spouts and bins, or in transit. Most of the shortages occur, however, by pilfering from cars while they are in the yards. Railroad yards are mainly on the outskirts of the city, where police protection is meager, and I would advocate that the companies furnish more adequate protection. The Chamber of Commerce has taken action in this matter, and many arrests have been made. This office has asked the coöperation of the police department, railroad companies, Chamber of Commerce and grain receivers, to prevent this evil as far as possible. Last spring 14 men were arrested for stealing grain, six of whom were found guilty. I believe that the city of Minneapolis should take definite action to stop this nefarious practice, as it certainly injures the grain trade of the city. Four or five policemen in citizens' clothes, constantly patrolling the railroad yards, would be the means of great betterment. Railroad companies and elevator men should keep all loiterers out of the premises. I recently detailed one of our employes as watchman in the railroad yards, and his reports would indicate a great deal of carelessness and irregularity in the handling of cars loaded with cereals while on their way to destination."

No one cause can claim all the credit for the shortages, and the carelessness at points of shipment combined with inferior weighing facilities cannot be freed from blame than the careless weighers at terminals. Dishonesty may be to blame for shortages in some terminal elevators, but is surely not so in all.

A. C. Clausen, chief grain inspector of Minnesota, in dealing with the same subject in his annual report, says: Reports from the several inspection districts show that but a small percentage of cars containing grain arrive in bad condition or unsealed. Out of 214,984 cars of all kinds of grain received from outside points 1,622 are reported as follows: Six hundred and twenty-two cars not sealed, 399 cars seals broken, 199 cars end door open, 174 with side door open, 109 with leaking grain doors, 17 leaking at side of car, 27 leaking at end of car, 5 leaking at center pin.

"Considering the vast number of cars handled, the distance most of them are hauled, and the necessarily rough usage to which they are often subjected, the wonder is that a much greater number are not found leaking or in otherwise bad condition on arrival. I have long been convinced that shortages in weight at terminal points cannot be attributed to loss in transit between interior and terminal points except to a very slight extent. The real cause for most shortages is, without doubt, pilfering on track at terminal points after the cars have arrived and been inspected, and while awaiting sale and delivery. While these depredations have been reduced in the past few years to a gratifying extent, too many small shortages still continue to be reported which can only be ascribed to this species of stealing. This subject is a prominent feature in the reports of

C. M. Reese and J. G. McGrew, state weighmasters at Minneapolis and Duluth, respectively. I concur in their conclusions that there is but one adequate remedy for this evil, ample police protection in all of the railway yards. It is gratifying to note in Mr. McGrew's report that some effort has been made by the railroad companies at the head of the lakes to apprehend and punish these offenders. Mr. Reese is not overstating the actual situation in some of the outlying Minneapolis railroad yards when he ventures the assertion that "any person can take a team and wagon, select his ground, fill his sacks from a car, load up and drive away without being noticed by anyone," and his opinion that both the city and railroad authorities should coöperate for the purpose of remedying existing conditions is, in my judgment, well taken."

MEETING OF SOUTHWESTERN IOWA AND NORTHWESTERN MISSOURI UNION.

The Grain Dealers' Union of Southwestern Iowa and Northwestern Missouri held a meeting at Creston, December 22. Among those present were D. Hunter, Hamburg, Iowa; Rowe & Loman, New Market, Iowa; J. C. McKee, Elmo, Mo.; E. C. Kayton, Strahan, Iowa; Wilkin & Giles, Lenox, Iowa; J. B. Samuels, Riverton, Iowa; Jerry Wilson, Conway, Iowa; Ed Sheldon, Percival, Iowa; Ed F. Rose, Coin, Iowa; F. M. Campbell, Randolph, Iowa; E. H. Vanschioack, Elliott, Iowa; J. R. Graham, Hastings, Iowa; G. H. Currier, Prescott, Iowa; J. R. Harris, Northboro, Iowa; G. A. Pierson, Orient, Iowa; J. L. Gafford, Osceola, Iowa; T. J. McCormick, Stanton, Iowa; D. N. Dunlap, Fontanelle, Iowa; N. N. Turner, Cumberland, Iowa; J. W. Sexton, Bridgewater, Iowa; M. Garrison, Afton, Iowa; J. Auracher, Shenandoah, Iowa; Wm. McMahill, Shenandoah, Iowa; I. Shambaugh, Shambaugh, Iowa; H. F. Ketchum, St. Louis, Mo.; C. M. Boynton, Creston, Iowa; G. A. Stibbens, Coburg, Iowa.

It was voted to forward a protest to the Commissioner of the Traffic Bureau, St. Louis, against the weighing charge of \$1 per car on grain sold on track, or to owners of private elevators; also one to the Chairman of Railroad and Warehouse Commissioners of Missouri, against the custom of shrinking all grain received in St. Louis a certain number of pounds for every thousand pounds weighed in by them, amounting to three or more bushels per car. The Illinois Association has joined hands with us in this fight for just weights, and I am informed our complaints have already had effect in East St. Louis.

A resolution was passed unanimously to put a man on the road, in behalf of the Union, for the purpose of increasing our membership and collecting delinquent dues. The Secretary was authorized to procure a suitable man and start him out for the purpose above mentioned. I take pleasure in saying I have been very fortunate in securing the services of our worthy President, Mr. D. Hunter, who has rendered the Union very valuable service in the past without any compensation whatever. It was decided at our last meeting to make a special assessment of \$1 per member for the purpose of defraying the expense of our representative while traveling, and I am happy to inform you every member present at the Creston meeting cheerfully paid the extra assessment of \$1, in order to increase our membership. There is no good reason why we should not have 250 to 300 members, and we feel very confident that with an effort on our part that number will be obtained. Our Union is stronger to-day than ever before, and we are duly recognized by all good commission houses and track buyers, and we are receiving their best support. We have made it very difficult for "scalpers" to exist, and to-day we have what few are left on the run.

G. A. STIBBENS, Secretary.

The receipts of grain of all kinds at Louisville, Ky., during 1897 amounted to 13,685,017 bushels, compared with 10,654,641 in 1896, an increase of 3,030,376 bushels. The shipments amounted to 10,361,852 bushels, compared with 5,952,773 bushels in 1896, showing an increase of 4,309,079 bushels.

TABLE SHOWING FREIGHTS PER BUSHEL.

Grain shippers often find it desirable to determine the exact amount of freight per bushel on the different cereals, at a given rate of freight per hundred pounds. To do this ordinarily requires some figuring, with a consequent liability of error. The following table will show at a glance the exact freight, per bushel, at any rate per 100 pounds or cental, from 1 to 70 cents:

Freight per 100 lbs.	Wheat and Clover Seed. 60 lbs.	Corn, Rye and Flax Seed. 56 lbs.	Barley and Hungarian Seed. 48 lbs.	Timothy Seed. 45 lbs.	Oats. 32 lbs.
Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1	.6	.6	.5	.5	.3
2	1.2	1.1	1.0	.9	.6
2½	1.5	1.4	1.2	1.1	.8
3	1.8	1.7	1.4	1.4	1.0
4	2.4	2.2	1.9	1.8	1.3
5	3.0	2.8	2.4	2.3	1.6
6	3.6	3.4	2.9	2.7	1.9
7	4.2	3.9	3.4	3.2	2.2
7½	4.5	4.2	3.6	3.4	2.4
8	4.8	4.5	3.8	3.6	2.6
9	5.4	5.0	4.3	4.1	2.9
10	6.0	5.6	4.8	4.5	3.2
11	6.6	6.2	5.3	5.0	3.5
12	7.2	6.7	5.8	5.4	3.8
12½	7.5	7.0	6.0	5.6	4.0
13	7.8	7.3	6.2	5.9	4.2
14	8.4	7.8	6.7	6.3	4.5
15	9.0	8.4	7.2	6.8	4.8
16	9.6	9.0	7.7	7.2	5.1
17	10.2	9.5	8.2	7.7	5.4
17½	10.5	9.8	8.4	7.9	5.6
18	10.8	10.1	8.6	8.1	5.8
19	11.4	10.6	9.1	8.6	6.1
20	12.0	11.2	9.6	9.0	6.4
21	12.6	11.8	10.1	9.5	6.7
22	13.2	12.3	10.6	9.9	7.0
22½	13.5	12.6	10.8	10.1	7.2
23	13.8	12.9	11.0	10.4	7.4
24	14.4	13.4	11.5	10.8	7.7
25	15.0	14.0	12.0	11.3	8.0
26	15.6	14.6	12.5	11.7	8.3
27	16.2	15.1	13.0	12.2	8.6
27½	16.5	15.4	13.2	12.4	8.8
28	16.8	15.7	13.4	12.6	9.0
29	17.4	16.2	13.9	13.1	9.3
30	18.0	16.8	14.4	13.5	9.6
31	18.6	17.3	14.9	14.0	9.9
32	19.2	17.9	15.4	14.4	10.2
32½	19.5	18.2	15.6	14.6	10.4
33	19.8	18.5	15.8	14.9	10.6
34	20.4	19.0	16.3	15.3	10.9
35	21.0	19.6	16.8	15.8	11.2
36	21.6	20.2	17.3	16.2	11.5
37	22.2	20.7	17.8	16.7	11.8
37½	22.5	21.0	18.0	16.9	12.0
38	22.8	21.3	18.2	17.1	12.2
39	23.4	21.8	18.7	17.5	12.5
40	24.0	22.4	19.2	18.6	12.8
41	24.6	23.0	19.7	18.5	13.1
42	25.2	23.5	20.2	18.9	13.4
42½	25.5	23.8	20.4	19.1	13.6
43	25.8	24.1	20.6	19.4	13.8
44	26.4	24.6	21.1	19.8	14.1
45	27.0	25.2	21.6	20.3	14.4
46	27.6	25.8	22.1	20.7	14.7
47	28.2	26.3	22.6	21.2	15.0
47½	28.5	26.6	22.8	21.4	15.2
48	28.8	26.9	23.0	21.6	15.4
49	29.4	27.4	23.5	22.1	15.7
50	30.0	28.0	24.0	22.5	16.0
52½	31.5	29.4	25.2	23.6	16.8
55	33.0	30.8	26.4	24.8	17.6
57½	34.5	32.2	27.6	25.9	18.4
60	36.0	33.6	28.8	27.0	19.2
62½	37.5	35.0	30.0	28.1	20.0
65	39.0	36.4	31.1	29.3	20.8
67½	40.5	37.8	32.4	30.4	21.6
70	42.0	39.2	33.6	31.5	22.4

When Mr. Leiter goes against the grain he usually makes the other fellow's pocketbook lighter also.

GEO. H. MORGAN.

The Merchants' Exchange of St. Louis is the successor of several organizations of different names, but all organized for the purpose of facilitating and fostering the city's trade. The first Merchants' Exchange was organized in 1850. The present exchange was organized in 1862, and since that has been an important factor in the development of the trade of the city.

During the thirty-five years' experience of the present exchange it has three secretaries and one man, George H. Morgan, has served as secretary during thirty-two years of that time. That he has worked earnestly and faithfully to promote the commercial welfare of St. Louis is evidenced by his long retention in this important position. During his period of service he has seen the city's population grow from 150,000 to 650,000 inhabitants, and its manufacturing products from \$27,000,000 to \$300,000,000. In 1857 the city's receipts included 3,594,548 bushels of wheat, 3,629,200 of corn, 1,781,417 of oats, 38,052 of rye, 264,093 bushels of barley, and 3,650 tons of hay, while during the eleven first months of 1897 the receipts included 10,461,310 bushels of wheat, 25,917,600 of corn, 11,152,920 of oats, 653,565 of rye, 1,332,040 bushels of barley, and 150,921 tons of hay. Secretary Morgan has many friends, is popular with the members, and has been very successful in conducting the work of the Exchange.

LAW SUITS PENDING.

At Topeka, Kan., on January 3, E. T. Bidwell and H. G. Scarborough brought suit against the Lux Commission Co. of Topeka for \$1,650.62 as due them on a deal. The plaintiffs allege that they ordered the Lux Company to purchase 50,000 bushels of wheat and 20,000 bushels of corn for May delivery, depositing \$1,650.62 for the purchase. On December 7 they received notice that the margin was not sufficient and that the property had been sold, leaving a balance of \$28.77 to plaintiffs. The ground of complaint was that the deal was not consummated according to instructions.

A suit has been commenced at Omaha, Neb., which is of interest to members of exchanges. Following the hint given in the decision against the Kansas City Live Stock Exchange, Shaw & Fell, a local grocery and commission firm, have begun suit to dissolve the Omaha Produce Exchange. The claim is set up that the members of the exchange form a combination to restrict trade and they are proceeding under the anti-trust law. Pending the trial of the case, Judge Scott issued an order restraining the produce exchange from interfering in any way with the business of Shaw & Fell.

In order to test the Kansas state law providing for licensed weighmasters, State Grain Inspector W. W. Culver swore out a warrant for the arrest, on January 4, of the private weighman of Denton Bros., in the Kansas Central elevator at Leavenworth. On the one hand the weighman is charged with "assuming to act as a weighman of grain belonging to persons other than himself without having taken the oath of office, etc., as required by law; while on the other side Denton Bros. claim that as they are not required by law to employ a weighman and consequently their employment of a private weighman is in no sense an infraction of public rights or a matter of public interest.

In the district court at Duluth, Minn., the Consolidated Elevator Co. filed its answer December 15 to the suit brought by the Vega Steamship Co. to recover \$682.83 for an alleged shortage in a shipment of wheat. The defendant admits that Spencer, Moore & Co. were the owners of wheat stored in one of its elevators on October 20, the day the wheat was loaded on the steamer Vega; admits receiving directions to load the wheat, admits that a bill of lading was issued after the wheat was loaded, but alleges that it was executed by the plaintiff, and not on any statement as to the quality or amount made by the defendants. The answer further alleges that in delivering said wheat to the steamship company the defendant acted under the orders of Spencer, Moore & Co., and had no con-

tract or dealings with the steamship company, and asks that on these grounds the action to recover be dismissed.

At Tacoma, Wash., a few days ago the case of Cardin & Gibbs against the O. R. & N. Co. came up for argument on demurrer before Judge Hanford. The suit is for a mandatory injunction prohibiting the company from refusing to bill wheat through to Tacoma and to accept therefore its pro rata of the legal rate to the junction point instead of imposing local tariffs to the junction of the Northern Pacific or other roads. The gist of the suit is to prevent discrimination against Tacoma and in favor of Portland, and on the side of the O. R. & N. Co. the contention is that the state law fixing maximum rates from one portion of the state to another is unconstitutional so far as it compels one company to transfer its cars to another line.

On December 1 at Louisville, Ky., Judge Miller granted E. G. Duchwall & Co. an injunction preventing the Cleveland, Cincinnati, Chicago & St. L. R. R. Co. and the Louisville Car Service Association from interfering with the proper delivery of cars of grain consigned to the complainants. The complaint was that the railroad company placed cars of grain consigned to Duchwall & Co. in an inaccessible location so that they were unable to unload them within the 48 hours allowed. A bill was rendered Duchwall & Co. for demurrage, which they



GEORGE H. MORGAN.

declined to pay, and for which they were reported as delinquents to the Car Service Association. This, it was charged, was a virtual boycott, and upon filing the suit Judge Miller granted a temporary injunction.

The suit of W. C. Atwater of Chicago, against T. F. Manyville of Milwaukee, to recover \$13,654.85, representing one half the loss on certain wheat deals, was heard in Judge Johnson's court in Milwaukee on December 21. The complaint alleged that plaintiff and defendant formed a partnership in 1891 to buy and sell wheat; that the result of the partnership was a loss of \$27,309.71, which loss the plaintiff paid, and the suit was to compel defendant to make good his half of the loss. The defense denied the allegations of partnership and losses, and set up the contrary allegation that such deals were gambling transactions anyway. The defendant also set up one deal whereby a profit of \$1,250 resulted, which was divided, and after which defendant denied that he had any participation in further deals. The court took the case under advisement.

The suit of George P. Wright as State Grain Inspector of Washington against the firm of Lilly, Bogardus & Co. of Seattle, has been decided by the Supreme Court of the state in favor of the grain men. The case, which was originally filed in the Superior Court last August, was brought by State Grain Inspector Wright at the instance of the grain merchants to test the validity of the state law enacted March 19, 1895, concerning the inspection of grain and regulating the payment of fees therefor. Lilly, Bogardus & Co. declined to pay fees amounting to \$4.40 on four different shipments of oats and barley consigned to them and landed at

the city dock, contending that the grain was not for "milling or export" purposes, but simply for keeping up their stock of feed. The Superior Court gave judgment for the defendants. The case was appealed to the Supreme Court.

A PLAN TO TAX IRREGULAR DEALERS OUT OF EXISTENCE.

The Grain Dealers' National Association has evolved a new plan for protecting its members from the cutthroat competition of transient and irregular buyers, which gives promise of winning it many new supporters. It takes in a new field for association work, but is entirely legitimate, and will result in much benefit to the members of the National. The plan includes the enlistment of all the regular merchants of the member's town in a campaign against peddlars and irregular dealers of all classes.

Articles advocating a decided stand against the irregular dealer will be published in the local newspapers and a printed petition and bill will be supplied to each member to secure the enactment of an ordinance taxing the peddlars and irregular merchants. The petition and bill will be about as follows:

"To the Mayor and Members of the Council of

"Honored Sirs:—In view of the fact that the established merchants who engage regularly in any line of business in our town pay taxes to support our government, fire department and schools, contribute to the support of our churches and patronize local institutions, we deem that they are justly entitled to any relief you can give them from competition with the traveling merchants or peddlars who visit our town for the purpose of buying or selling. The cheap silverware or general merchandise merchant, who moves from place to place, has no interest in the welfare of our town and cares not for the reputation of our merchants. He does not expect to thrive by selling good goods or honest dealing, hence cannot remain in one place long and has a decided aversion to staying long enough to pay taxes. Therefore, we hereby petition you to enact the following as an ordinance of this city:

"An act to require the irregular or transient merchants, who do business in state of to bear their just share of the taxes necessary to maintain the government.

"(1) Be it hereby enacted by the council of the town of state of that henceforth whoever comes to this town to sell merchandise brought with them or to buy produce for shipment shall deposit two hundred (\$200) dollars with the town treasurer as a guarantee that he will continue in business in this town for the period of one year. If at the end of one year he presents receipts showing that he has paid all the taxes charged against him in this county, the full amount of the deposit shall be returned to him, and henceforth he shall be considered a regular merchant of this town and shall not be required to make a deposit or pay the license fees required of transient merchants.

"(2) If a new merchant does not desire to conduct his chosen business in this town for the full term of one year, he shall be charged a license fee of twenty-five (\$25.00) dollars for each month or part of a month he has been in business, and the balance remaining on deposit shall be returned to him when he discontinues his business.

"(3) Any money collected from such transient merchant as fees for the privilege of conducting any business in this town shall be paid into the general fund of the town.

"(4) This ordinance shall be in effect on and after its first publication in a local newspaper."

The regular merchants of a town as well as the local newspapers would readily lend their influence to the support of such a measure and it will be very easy to secure enough signers to the petition to induce the town council or board of aldermen to enact the desired ordinance.

The bread-eating population of the world is estimated at 510,000,000.



Joseph Geeman has completed a three-story malt house at Los Angeles, Cal.

The Banner Brewing Co. of Chicago, Ill., has passed into the hands of a receiver.

Frank Moesmer will build a new brewery of 30,000 barrels' capacity at Brooklyn, N. Y.

The Schmulbach Brewing Co. of Wheeling, W. Va., has completed a new malt storage house.

The Toledo Brewing and Malting Co. of Toledo, Ohio, is building a storage and boiler house.

The Phil Schillinger Brewing Co. of Birmingham, Ala., will make improvements costing \$7,000 on its plant.

The Consumers' Malting Company of Chicago, Ill., has been incorporated with a capital stock of \$200,000.

The Gottfried Brewing Co., Chicago, Ill., has purchased from the Barnard & Leas Mfg. Co. a 9x24 Barnard Feed Mill.

The effects of the Milwaukee Brewing Co., Ltd., of Victoria, B. C., have been sold to the Victoria Phoenix Brewing Co.

The John Stanton Brewing and Malting Co. of Troy, N. Y., is erecting a new storage building of 15,000 barrels' capacity.

The Joplin Brewing Co. of Joplin, Mo., has built an addition to its brewery, and installed two new boilers of 100 horse power each.

Charles M. Warner of Syracuse, N. Y., has purchased the two malt houses formerly owned by Miller & Kirby at Weedsport, N. Y.

On December 21 a patent on a dumping malt floor was granted to Christian Macher, Herman W. Kuehl and Otto Meinhause of Chicago, Ill.

The malt house of the C. M. Warner Malting Co. of Syracuse, N. Y., owned by the American Malting Company, was damaged by fire recently.

The old malting plant at Peoria, Ill., which was recently purchased by the Northwestern Malting Co., has been enlarged and placed in operation.

Charles C. Gridley, manager of the Nester Malt House at Waterloo, N. Y., died suddenly in his office on the afternoon of December 7 of paralysis.

The Little Rock Brewing & Ice Co. of Little Rock, Ark., has been organized with a capital stock of \$100,000 to build a brewery of 50,000 barrels' capacity.

The Independent Malting Co. of Davenport, Iowa, has erected new buildings and added new machinery to double the capacity of its plant, making it 36,000 barrels.

The malt house of the estate of Jacob Weschler of Erie, Pa., owned by the American Malting Co., received damages amounting to about \$100,000 from fire recently.

The directors of the American Malting Company have declared a dividend of 1 1/4 per cent. on the preferred stock of the corporation for the quarter ending with December 31.

The large brewery erected by the Los Angeles Brewing Co. at Los Angeles, Cal., is expected to be completed by March 1. It will have a capacity of 25,000 barrels yearly.

The Kennedy & Murphy Brewing and Malting Co. of Troy, N. Y., is operating the old Dunlap malt house at Watervliet. The malt house had been idle for several years. The company elected the following officers at its recent annual meeting: William

Kennedy, president; Edward Murphy Jr., vice-president and treasurer, and John J. McCormick, secretary.

The total receipts of barley at Detroit, Mich., for 1897 amounted to 1,202,722 bushels, as compared with 1,372,335 bushels for 1896, 826,026 bushels for 1895, and 566,796 bushels for 1894.

The St. Paul Brewing Co. of St. Paul, Minn., has been organized with a capital stock of \$50,000. The incorporators are Maria A. Nicolin, Adolph Schell and Katherine Ehrmantraut.

It is reported that a new malting company will be organized at Milwaukee, Wis., which will not be connected with the national organization, and which will have a capital stock of \$125,000.

An effort is being made to consolidate the independent breweries of Chicago into one large corporation. The plan contemplates taking in 18 breweries with the possibility of adding others.

The E. Becker Brewing Co. of Lancaster, Ohio, has completed the enlargement and remodeling of its plant. A new brew house was built, and the capacity of the ice-making plant was increased to 50 tons daily.

The Gambrinus Brewing Co. of Kensington, Pa., has been incorporated with a capital stock of \$30,000. The incorporators are Joseph Schiessens, Paul S. Sentgend, John S. Severin, Frederick Dooner, and Michael Fischer.

The Sioux Falls Brewing Co. of Sioux Falls, S. Dak., has been organized with a capital stock of \$200,000. The incorporators are Moritz Levinger, Moses Kaufmann, C. E. McKinney, John McClellan and Otto Pemiller.

The Syracuse Malting Co. of Syracuse, N. Y., has leased the Greenway Malting Plant of the administrators of the estate of Lincins Gleason, and will operate it. The malt house had been closed for about a year.

The New Kensington Brewing Co. of New Kensington, Pa., has been incorporated with a capital stock of \$50,000. The directors are J. Miller Doolittle, M. A. Muller, Phillip T. Frennd, Thomas P. Herron and Bernard Hemppery.

The receipts of barley at the Head of the Lakes for the year 1897 amounted to 5,479,877 bushels, against 6,866,420 bushels during 1896. The shipments of barley amounted to 5,066,252 bushels, against 6,795,775 bushels during the year 1896.

The Standard Brewery Co. of Newcastle, Pa., has been organized with a capital stock of \$70,000. Geo. W. Lamorer is president of the company, R. M. Hughes, vice-president; E. O. Haum, secretary; M. Feuchtwanger, manager; John Siebenrock, assistant manager.

The Springfield Brewing Co. of Springfield, Mo., has been organized with a capital stock of \$30,000, and will build a brewery of about 60 barrels' capacity daily, together with a 12 to 15 ton ice plant. The brewery engine and boiler house will range from two to four stories in height. A storage building will also be erected.

According to the report of C. B. Murray, superintendent of the Chamber of Commerce, Cincinnati, Ohio, the receipts of barley at that place for 1897 amounted to 1,092,162 bushels, as against 1,273,099 bushels for 1896. The shipments for 1897 were 73,720 bushels, as against 6,261 bushels for 1896. The receipts of malt for 1897 were 813,431 bushels, as compared with 674,782 bushels for 1896. Ship-

ments of malt for 1897 were 15,394 bushels, as compared with 19,189 bushels for 1896.

The plant of the Wisconsin Malt & Grain Co. at Appleton, Wis., will be enlarged to a yearly capacity of 750,000 bushels. This will be almost double its present capacity, and when completed the company will have the largest malting plant in the state, outside of Milwaukee.

The exports of barley from San Francisco, Cal., for the 12 months ending Nov. 30, 1897, were 3,116,909 centals (100 pounds). The stocks of barley remaining in the state on the 1st of December, as compiled by the San Francisco Produce Exchange were in 1897, 3,136,020 centals; in 1896, 3,008,980 centals; in 1895, 4,072,560 centals.

William Besley, a well-known maltster of Waukegan, Wis., and one of that city's most prominent citizens, died December 23. He was 90 years of age, and about a month before his death slipped and fell in such a manner as to sustain a compound fracture of the thigh. His constitution was not strong enough to overcome the shock, and he declined gradually until he passed away. He came to this country from England in 1836, and settled in Oakland County, Mich. He was the founder of a very large business, and his honesty of purpose was proverbial among his friends, neighbors and business associates.

ARTIFICIALLY DRYING MALTING BARLEY.

It seems rather paradoxical that barley intended for malting should have to be deprived of water, when a thorough steeping forms the first stage of its conversion into malt. Maltsters, however, find that grain harvested in wet seasons germinates irregularly and unsatisfactorily unless it can be dried, the reasons for this being twofold. In the first place, a naturally damp barley is irregularly so, some grains containing a larger proportion of moisture than others; and again, it is highly probable that the presence of an excess of water prevents the due after-ripening of the grain and thereby hinders the elaboration of the food material for the development of the germ. At the recent general meeting of the Munich Scientific Station for Brewing, Dr. J. Brand read an interesting paper on the value of the artificial drying of malting barley in wet years, when mere turning is insufficient to aid the escape of the superfluous moisture present in the grain. Though laboratory experiments made by different investigators do not seem to have always furnished results indicating a favorable effect of the operation of drying—the reason of the divergence being probably attributable to variations in the experimental conditions, especially as regards aeration—the tests carried out on a practical scale in various countries give a decidedly affirmative answer to the question, "Is artificial drying beneficial?"

In Scotland, where artificial drying is very general, and, indeed, necessary—the barley containing, as a rule, about 17 per cent. of moisture—6 to 12 hours' exposure to a temperature of 40° to 45° C. on a kiln is usually given, some maltsters having a special kiln for this operation in order that the working of the malt kilns may be secure from interruption. Another practice is to load the damp barley on the malt kiln as soon as the malt has been removed, thus making use of the residual heat in the kiln and thereby saving fuel. In Holland a longer drying (12 to 24 hours) at lower temperatures (25° to 30° C.) is given with good results, and at Mülhausen a pneumatic malting drum is charged with barley and revolved for 48 hours, a powerful current of dry air at 22° to 25° C. being continuously passed through the apparatus; the barley so treated malts in every way as well as if properly sweated in the stack and ripened by storage. In some of the Russian provinces where the climate is particularly moist, it is customary to dry the barley on the straw by exposing it to the action of fire gases at 35° to 40° C., or to dry the newly thrashed grain in special kilns. Finally there is the American system of drying by passing currents of warm air over the barley on a system of endless belt carriers.

The most favorable temperatures for the operation appear to range between 20° and 50° C. (68° to 112° F.), although in exceptional cases the barley

will stand even 100° C. without losing its germinating power, provided the temperature be raised gradually.—*Country Brewers' Gazette, London.*

THE BARLEY WEEVIL.

Numerous complaints are making themselves heard on the Continent of the prevalence of this pest, and inquiries are being sent to the brewing journals for advice as to the best means of combating the evil. Windisch, in the *Wochenschrift für Brauerei*, gives the following account of the life history of the insect, and of a rational plan for destroying same:

The female of the corn weevil (*Calandra Granaria*, L.) bores a hole in the barley grain and deposits therein one or three (less frequently two) eggs, which hatch out into larvae. The contents of the grain only affording sufficient nourishment for one of these, the other (or others) is obliged to seek out a new habitation. Two generations come into existence each year, the eggs for the first being laid about the middle of April, and requiring from 9 to 11 weeks for their development into the perfect insect, which in turn lays its egg, the second brood arriving at maturity in September or October, and living through the winter (the perfect insect only).

These facts being known, the best way of preventing the spread of the pest becomes apparent, namely, to keep the insect from finding a home in the new crop of barley, and as the habitat of the first brood must be in the grain from the preceding year, this should be rekilned about the end of July at a temperature of some 122° F., which, according to the researches of Will and Bau, is sufficient to destroy the weevils both in the incomplete and mature stages. At the same time the granary should be thoroughly cleansed, and all chinks and fissures in the flooring stopped up after being dressed with chloride of lime or hydrochloric acid, the latter acting with certainty.

Where these precautions have been neglected the weevil will have attacked the new grain, but as this requires some time to thoroughly mature—during which period the insect will not resort to it unless other nutriment fails, and will on no account deposit its eggs therein—the period of action is not a very long one, as winter quarters are entered into in September or October, and they consist of the crevices and nooks of the flooring, not the grain heaps themselves. However, in the early spring the hibernated army sallies forth to renew the campaign, and a repetition of the process above described therefore becomes necessary. The presence of the weevils and larvae may be readily detected by exposing a sample of the grain on a sheet of paper to the light by a window, when they will quickly begin to retreat in the direction of the shade, being averse to light.

CORN IN MEXICO.

One of the surprises for the traveler from the United States who visits Mexico is the large amount of space devoted to corn in the haciendas, or landed estates, we passed. Many of the fields cover hundreds of acres. Corn forms fully half of the food of three-fourths or more of the Mexican people, the peons; and this accounts for the great demand for this cereal. They grow it in large quantities, wherever there is sufficient rainfall or they have the means to irrigate. In the table land region, extending from a few miles south of the Rio Grande to the City of Mexico, and thence east to within forty or fifty miles of the Gulf Coast, which has been under cultivation for the most part three hundred years or more, they break up the ground with a plow like that used by Elisha, the prophet, in Bible times. The woman or boy follows, dropping the seed much as we used to do here 30 or 40 years ago. The rains fall almost every day and the growth is very rapid. In the lower lands below the City of Mexico and on the isthmus they plant new ground in a more novel way. The planter carries a pointed stick about the size of a hoe handle and a little basket of corn. He thrusts the stick into the ground two or three inches, dropped three or four kernels into the hole he made, pushed a little

dirt upon them, and stepped forward to make another hole. This is all that is done to make the crop, and a yield of 50 bushels is about the average expected. The ears are often 18 inches long, and the corn is of excellent quality for human food. Stock gets but little of it, if any. Cattle, horses and mules live on grass and herbage entirely, and all the year.

The almost universal form in which the dry corn is used is in that of torteaya. It is boiled over night till soft, and then is mashed on a flat stone, called a metate. Then it is molded into a flat cake, between a pair of black, and most likely dirty, hands, and spread upon a heated pan, or piece of sheet-iron or earthenware; turned once or twice and served upon the table. With boiled black beans, frijoles, this makes the sum and substance of the living of the peon, and of many of the better classes, too. People can live on this diet, for millions do, and they grow fat and greasy, and they can work on it. The cargadores, porters or carriers, trot along under loads that would stagger some of our stoutest-looking beef and pork eating men in the same business. But for all that we like good bread and butter, and the other concomitants of good farmer fare at the North, much better. But speaking of corn in Mexico, it seldom sells for less than \$1.00 the bushel, Mexican money, and is as much of a staple as wheat is with us, although it is difficult to keep it through the year, owing to a weevil that infests it in the crib.

On the isthmus they grow a crop in the winter, planting in December and gathering in March. Then they plant rice on the same ground, gather it in May, and again plant corn in June, after the rainy season is well along. This crop they gather in September or October. Making two crops in a year renders it unnecessary to try to save a crop through, between seasons. And what they do not have to do they are not apt to do, in that country. Neither, for that matter, do we, here in the boasted North.

"SHARPS" AND "FLATS."

So long as there are "flats" in the world there will be "sharps" to rob them.

This is the ultimate moral of every green goods game, and of every Wall Street shearing of "the lambs."

This moral is peculiarly illustrated in the Dean Company swindle. A gang of sharpers rented offices in the Wall Street region and threw out bait to catch gudgeons. They succeeded in getting away with \$7,000,000 of other people's money, and their success was due solely to the fact that the other people were fools.

The sharpers sent out the announcement that under their "system" of speculation on the exchanges they could and would convert any man's \$1,000 into \$5,000 within the year, without risk of loss or doubt as to the result.

The statement was one that nobody but a fool would believe. But there are so many fools in the world that they invested an aggregate of \$7,000,000 in the venture and naturally lost it.

The rascals ought to go to state prison, of course. But what about their victims? Is not an insane asylum the fittest school for them?—*World.*

The report of Minnesota's State Weighmaster shows a deficiency for the last crop year of \$7,057.68. This is due to the fact that Jan. 1, 1897, the fees for weighing all commodities, into and out of elevators and mills, were reduced from 25 cents to 15 cents per car. If the fee of 25 cents per car had been retained during the whole grain year, the amount derived from the above sources would have been \$50,731.50, or \$11,234.20 more; and, including the receipts from railroad yards and other sources \$3,867.86, making the total receipts \$54,599.36, the department would have had a surplus of \$4,405.42, instead of the deficiency mentioned. The department has heretofore been self-sustaining, and if it becomes necessary, from a pecuniary standpoint, it can be made so at any time in the future by increasing weighing charges.

PNEUMATIC GRAIN TRANSFER FOR MONTREAL.

The immense profits of the Montreal Elevating Company, which has the sole monopoly of the grain elevating business of this port, are likely to be shared by a sister concern in the near future. The Pneumatic Elevating Company, it is understood, is being formed, and arrangements are being completed for its introduction to the Montreal trade.

Imagine one of these pneumatic elevators at work alongside one of our largest vessels in port, sucking the contents of a barge of grain and spitting it into the hold of the steamer at the rate of 142 tons per hour, at a cost of about 3 cents per 40 bushels for coal and labor. We can well imagine the supporters of the old system watching its wonderful achievements, and in their heart of hearts sympathizing with the poor dock laborers of London in dubbing it the Devil. But if the proposed Pneumatic Elevating Company is successfully started, as we are assured it will be, a number of these "devils" will be at work in our harbor, transferring the grain with hissing and spitfire velocity from the barges to the steamships; and at a reduced cost, which will cause our grain shippers to regard them as angels of mercy. We are living in an age of progress, and it is about time the excessive charge of $\frac{1}{2}$ cent per bushel for elevating grain at this port should be reduced to a more reasonable basis. It has been repeatedly stated in public utterances on the floor of the Corn Exchange that an excess of only one-sixteenth of a cent in our canal tolls was sufficient to divert grain traffic from the St. Lawrence to the Erie route. But what does it matter whether the excess of charges is in canal tolls or in elevating the grain at this port?—*Trade Bulletin, Montreal.*

Of the working of this pneumatic system, the London Daily News gives a very graphic description, in which it says that the old bucket elevators are likely to be superseded by the pneumatic elevators. Regarding the discharging of the SS. Delphic, with a cargo of 437,000 bushels of oats in the London docks, it says: In the discharge of the immense cargo of the Delphic there were four or five bucket elevators at work, but there was also a pneumatic elevator engaged. There has been one constructed on this principle at work at Millwall for the past three or four years, and the new system seems to be coming into favor. This "pneumatic" was afloat alongside the big ship, down into the hold of which it extended several flexible tubes, like so many elephant's trunks. The nozzles of the tubes were simply buried in the grain and exhaust pumps set going, by which the grain was sucked up just as an elephant might draw up water. There were no trimmers required to bring the grain to the elevator. The elevator itself, with the guidance of one man at each nozzle, could thrust its snout into any part of the hold and suck up the cargo to the last grain. The suction tubes are connected with an automatic and self-registering weighing machine, so that the grain may, if required, be weighed out in sacks as it comes from the hold, or the pneumatic engines may be connected with a system of tubes laid about the interior of a granary. In this case the cargo may be sucked up out of the hold of the ship and blown into the granary. At present, however, there are no big granaries in connection with the London docks, and grain is discharged into lighters to be carried off wherever it is required. This is said to be a serious disadvantage to the port, and it is now in contemplation to erect somewhere in the Thames a transit granary into which cargoes may be discharged direct from the ship, and where the weighing may be done afterward. At present merchants may require the weighing to be done as the grain leaves the ship, and this occasions serious delay. Even with this requirement, however, the latest achievement of the pneumatic elevator has been to discharge, to weigh, and deliver into barges a cargo of maize at the average rate of 142 tons an hour throughout the day, at a cost of $1\frac{1}{2}$ d. a ton.

History repeats itself. The first name of the young man who has all the grain locked up is Joseph, —*St. Paul Globe.*



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This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., JANUARY 15, 1898.

CARS ONLY FOR GRAIN HOLDERS.

The farmers of some districts of Indiana and Illinois are shelling their corn and the local elevator men are unable to get cars fast enough to haul away the corn offered. Some elevator men of Kansas and Iowa have also had similar trouble recently. A few of the elevator men, who are compelled practically to suspend business because they cannot get cars, report that when empty cars are set off at their stations the local agent gives as many to the irregular dealers as to the elevator man.

This is a rank injustice that has been overcome in some districts by the organized effort of the regular dealers, and could be stopped in many other districts if the regular dealers would get together and demand that cars be given only to shippers who have the grain on the ground and ready to load into the cars.

One of the Nebraska lines, in heeding the ruling of the State Board of Transportation, ordered its agents to ignore the applications of scoop-shovel men in time of a scarcity of cars and to give cars only to elevator men, unless they had more cars than the elevator men wanted. Heretofore some of the station agents, with itching palms, have been guilty of discriminating against the elevator men in the distribution of cars, but a complaint to headquarters generally results in their removal or reprimand.

It is fair that railroad companies should establish a rule that cars must first be given to regular shippers who have the grain at hand and ready to load into them, then if any remains, and the railroad company is not disposed to have them used as storehouses while the farm-

ers are hauling in the grain, let them be hauled farther West and given to some other regular dealer. Some railroads in Manitoba and North Dakota do not permit their cars to be side-tracked for loading from wagons, and it must be admitted that the managers are taking the proper course to keep their rolling stock at work.

WHOLESALE GRAIN MERCHANTS.

The year just closed will be memorable in the annals of the grain trade for the largest transaction in wheat ever recorded, if recollection serves us rightly. What was commenced as a deal in futures by Messrs. Armour and Leiter turned out to be a deal in the actual stuff of a magnitude to startle. Our readers are familiar with the facts of this extraordinary transaction; how Armour was short many million bushels of December wheat to young Joseph Leiter, and how he hustled the stuff into Chicago by lake and rail and delivered millions of bushels to Mr. Leiter, receiving therefor the cash of the young man, and doubtless, also, the cash of the young man's father, who expressed himself delighted that his son had blossomed out into such a large "merchant."

In the last days of December, when Mr. Armour was delivering wheat in jags of half a million bushels or so, matters became exciting, and some people looked for a crisis. But the deal closed tamely, like any other large transaction involving mere buying and selling. Armour filled his contracts and Leiter has a well advertised stock of from eight to ten million bushels of wheat on hand, which he is holding above the market price. It is a heavy load, but the young man and his father are heavy lifters.

FREE STORAGE FOR GRAIN AT COUNTRY POINTS.

Some time ago the American Warehousemen's Association made an earnest attempt to induce the Interstate Commerce Commission to order rail carriers to cease storing freight free. The Commission refused to do as requested, but was of the opinion that if rail carriers gave free storage to any they must give it to all, indiscriminately.

The law specifically prohibits discrimination of any kind, yet the railroads have long discriminated against bulk grain. They provide freight depots and free storage for seventy-two hours for package freight, and that, too, voluntarily, yet they refuse to provide depots and storage for bulk grain at any of their country stations, although it gives them more revenue than all the other freight shipped from the country stations.

The country elevator men are easily hoodwinked into believing that the railroads are conferring a great favor when they lease them a site for a bulk grain depot at so much per year. The elevator men erect the depot with their own money, and even release the railroad company from all liability for damages due to fires caused by sparks from their locomotives. As soon as they get the depot completed the elevator men spend their time collecting grain to ship over the carrier's line. For all this ardent

service and risks taken for the benefit of the carrier it does not so much as say, "Thank you."

However, when the elevator or bulk grain depot is full, and cars are scarce, the carrier will show his appreciation of the services of the elevator man by giving cars to transient buyers, who have no loading facilities other than a scoop-shovel.

According to this recent decision the railroads must give free storage for bulk grain if they give it for anything. As they are averse to buying the elevators it will be necessary for them to contract with the country elevator men to store free all bulk grain offered for shipment, for as long a period as they store other freight free. Surely some recompense is fairly due the country elevator men for the service.

THE OUTLOOK FOR THE ERIE.

The results of 1897 on the Erie Canal are not reassuring to the friends of waterways. Not only did the shipments of grain fall from 35,000,000 in 1896 to less than 24,000,000 in 1897, in spite of the phenomenal movement of grain last year, but the improvement of the canal has been so managed as to incur the wrath of the taxpayer. The people were told, on what appeared to be excellent authority, that the improvements could be made for \$9,000,000, which sum was voted out of the treasury of the state of New York. It is not creditable to the management of the canals that less than two-thirds of the intended improvement has been made and that \$7,000,000 additional will be required to complete the work.

Very naturally this sort of thing breeds irritation and it is doubtful whether the people will vote the amount asked. Governor Black intimates that any further expenditure will have to be authorized by the people themselves. Why the work was not done for the amount originally contemplated, the New York Chamber of Commerce proposes to find out and will hold an inquiry through a committee appointed for that purpose.

Much as the canal boatmen deserve the sympathy of the public for the struggle they have been making for existence against the railways, their attitude, as expressed by the resolutions passed at the meeting held in New York on December 20, is calculated to make the average citizen impatient of the whole question, and long to have the Erie filled up if it is to be a perpetual drain on the state, and require constant bolstering by the repressive power of the law. At their meeting they not only asked for state elevators at Buffalo and New York, but for the suppression of grain gambling, to prevent the ownership of connecting elevators, vessel lines on the great lakes and harbor lighters in New York by state railroads, the passage of laws to relieve canal carriers of liability as a common carriers, so far as fire and marine risks are concerned, and to declare all docks and piers in the harbor of New York free.

This is not an interesting program to contemplate, coupled with a further expenditure of money on the canal. The outlook is not reassuring to those who wish to see the waterways perpetuated, and not the least discouraging feature is the extravagant demands made by alleged friends, who are denouncing "New York's antiquated canals" and calling for their

"enlargement to their fullest capacity." Whatever this last phrase means, it implies the spending of immense sums of state money, and the people are likely to resent it and slight the canals altogether.

PAYING CASH TO SELLER TO BIND SALE.

Out in Western Iowa a few regular grain dealers are waiting anxiously for the delivery of grain contracted for and partially paid for. It seems hardly probable that Iowa grain dealers should get caught by the confidence men on that old, old game, but several of them are now very busy nursing a wrecked faith in humanity. The supposed farmers offer to sell the elevator man a big lot of choice wheat and submit a bright, clean sample of it. If the sale is made the farmers ask for a payment of \$100 to bind the contract. The unsuspecting buyer pays the money and makes the entry in his day-book, but the dealer who is alert sends the confidence men over to his hated competitor "who makes a specialty of handling milling wheat and can afford to pay more than he can."

If dealers are driven by competition to pay for grain before they get it, they should at least confine their purchases to farmers whom they know to be honest. The better way is to take a written contract from the farmer to the effect that he will deliver the grain at the price agreed upon within a stipulated time. Then pay for it as it is delivered.

THE LAW NEEDS REPAIRS.

The eleventh annual report of the Interstate Commerce Commission is largely a plea for a rehabilitation of the Commission. That body realizes more forcibly than the public the effect of recent Supreme Court decisions upon its future work. The Commission feels its impotence, under recent rulings, to do the work which was mapped out for it by Congress. Over one-third of the orders issued since the Commission was created have directed reductions of rates, and many of the cases now pending involve similar reductions.

In view of the Troy, Ala., Board of Trade case, lately passed upon by the Supreme Court, this part of the Commission's work is largely at an end. Immediately after that decision, the point of which was that railroads might meet water competition without notice to the Commission, Western roads raised their rates to intermediate points over more than 100,000 square miles of territory, while the tendency on through shipments was all the other way. This was done because the roads realized that the long and short haul clause was knocked out. According to the Supreme Court's view, as given in the Troy case, any old thing would do for an excuse, as the roads, and not the Commission, were to be the judges in the first instance of the rates required to meet competition. How ineffective that ruling has made the Commission is instanced by a recent case brought before it, where the petitioner asked to have the rate on coal from Cumberland, Md., to North Garden, N. C., changed to a reasonable one, as required by law. The Commission dismissed the complaint December 31 without prejudice, because, as interpreted by the court,

the law does not permit the Commission to order changes in rates.

What the Commission asks is unquestioned authority to continue doing in the future what it assumed to do in the past. It wants authority to regulate commerce between the states. To do this effectively it must have the power to prescribe rates, and should be a tribunal where a shipper can obtain redress. The Commission also asks for power to correct discriminations and carry out the evident intent of the law, which was that the railroads should not have the power to discriminate, in interstate commerce, against individuals or localities.

Congress should have no hesitation in conferring such powers or else repealing the law altogether. As the law now stands, it is mutilated by court decisions beyond the hope of usefulness until it is thoroughly repaired in the legislative workshop.

PROTECTION FOR RECEIVERS.

The Cincinnati commission men have secured a settlement with the transient shipper who forged bills of lading for hay and mulcted them out of several hundred dollars. This is quite unusual and not regular, but will bear repetition without any protest from commission men who lose by bogus bills of lading. However, it is not likely that many of them will have the good fortune to secure such settlements.

The latest sufferer by a forged bill of lading is a Baltimore commission firm, who advanced \$300 on a forged bill for a car of oats. After feting the impostor two cars of corn were bought, but not paid for. Grain commission men suffer so much by forged bills of lading that it is time action was taken to give them some protection.

The receivers' associations could, with very little effort, induce carriers to refuse to issue blank bills of lading. Such action would not discommode the station agents in the least. If they are opposed to doing the arduous labor necessary to filling in bills of lading, they should be provided with seals difficult to imitate, and each bill should bear, in large, black-faced type, the words, "Not good unless stamped with the official seal of the local agent and signed in ink by him." The forgeries that go unpunished are becoming entirely too numerous to permit the receivers to continue to make advances on shipments without some misgivings as to the return of their money.

The new eastbound freight tariff that went into effect January 1 was maintained, it is stated, for the unusually long period of six days. The reports of rate-cutting are strenuously denied by Commissioner Blanchard of the Joint Traffic Association, and the railroad officials point with virtuous pride to the fact that none of them yielded to the seducing offers of Joseph Leiter to move his wheat. He could not get a reduction of an eighth of a cent, they say. And yet everybody knows that if Mr. Leiter does move his wheat this winter the roads will tumble over each other in their anxiety to get the eight or ten million bushels of wheat that he has lying around in the Chicago elevators. The railroads will have to pay some of the expenses of that celebrated wheat deal.

LOADING FEE SCALE.

Some of the railroads are slowly coming to recognize the justice of giving a loading fee to the regular country elevator men, and in a few instances it has been granted. Naturally the Grain Dealers' National Association is working to secure this good thing for its members, and the demands of the promoters of this plan to protect the elevator man from the irregular dealer are slowly assuming a more equitable form, so that the fee is more likely to receive the desired attention from the traffic managers.

The purpose of the loading fee is to give the country elevator man protection from the scoop-shovel man and all transient shippers, who load direct from wagon to car. Incidentally the elevator man may get a little rakeoff, but if he does it will be no more than he is justly entitled to.

It is now proposed that the rail carriers shall grant a loading fee of one-half cent per hundred on all grain loaded into cars from country elevators and transported 100 to 200 miles; one cent per hundred for grain carried 200 to 400 miles; one and one-half cents per hundred for grain carried 400 to 800 miles, and two cents per hundred for grain carried 800 miles and more by the receiving carrier. A loading fee paid to country elevator men, according to this scale, would give them the protection needed. It would not make any difference to the elevator men if the rate on grain from his station was advanced to include the amount of the loading fee. He would not have to pay the advance.

The elevator man is entitled to the loading fee for many reasons. The railroad companies would give it promptly if the elevator men were to decline to operate their houses unless it were given. It is given to some now, and they are prompted thereby to keep their elevators open the year around. Others would and will do likewise as soon as carriers can see their way clear to giving it without getting into trouble.

There is one thing about Chicago's big stock of wheat that is not lighter than usual, and that is the carrying charges. Mr. Armour charges the same old storage rate for wheat, and thereby recovers a portion of his losses. If only 5,000,000 bushels of the wheat were in Armour houses the storage charges would amount to \$37,500 per month.

According to the report of the Bureau of Statistics, breadstuffs exported during the year 1897 were valued at \$243,121,108, against an amount valued at \$176,278,405 for 1896. The exports of the various grains, compared with those of 1896, were as follows: Wheat, 108,644,977, against 83,156,637 bushels; corn, 186,470,601, against 128,647,307 bushels; oats, 52,263,174, against 30,378,779 bushels; rye, 10,572,660, against 5,323,889 bushels; barley, 15,711,769, against 16,285,055 bushels. The amounts exported in December, compared with December, 1896, were: Wheat, 12,909,976, against 8,851,650 bushels; corn, 17,937,638, against 15,003,943 bushels; oats, 7,078,021, against 4,026,461 bushels; rye, 1,338,997, against 498,954 bushels; barley, 590,498, against 2,606,584 bushels; wheat flour, 1,818,023, against 1,582,215 barrels; corn meal, 90,816, against 41,114 barrels; and oatmeal, 8,777,619, against 6,928,513 pounds.

EDITORIAL MENTION

Indiana grain dealers have not yet organized that much needed association.

Fortunately for the grain trade, the Peoria Board of Trade still has charge of the inspection of grain at that point.

Grading grain is not an exact science, but the inspectors of long experience become so proficient that they are almost infallible.

Manitoba elevator men are succeeding in getting themselves charged by the newspapers with forming all kinds of combinations to ruin the farmer.

Receivers who expect the patronage of regular country shippers should not solicit shipments from scoop-shovel men at stations where the regular dealers are established.

When the elevator men get together and support their organizations as they merit, they will have some chance of receiving the recognition and fair treatment the railroads now refuse.

Cheap cotton is driving Southern farmers to wheat growing. If they go into wheat growing very extensively it, too, will prove unprofitable, and they will then go back to cotton growing.

The Board of Directors of the Grain Dealers' National Association held a meeting recently in Chicago and transacted considerable business that will surely work to the profit of the members.

Dealers who neglect to pay their dues in trade organizations are often the very ones who are most in need of organization. If regular grain dealers expect to profit by association they must supply the funds to carry on the work.

One of the railroad companies having large empty elevators in the Northwest is hauling corn at a cut rate to fill them, so as to earn storage charges. The elevator man who has no railroad to fill his house is in a pretty bad way nowadays.

The regular grain dealers of the Southwest are holding meetings frequently and seem to be thoroughly alive to the advantages of organization. In Ohio the regular dealers are suffering as much as anywhere, but they are very slow to avail themselves of the advantages of organization.

The year just closed was a phenomenal one in the grain trade at all the centers. At Chicago alone the total receipts of grain from the West were 329,618 carloads. The heaviest month was August, when 57,474 carloads were received. As compared with other years, 292,427 carloads were received in 1896, 222,765 in 1895 and 204,408 in 1894. In 1897 the C. B. & Q. brought

the most grain to the city, or 67,358 cars. The Illinois Central followed next with 41,285 cars.

The Kansas State Grain Dealers' Association held its annual meeting at Topeka January 11 and 12. The Association is growing and doing much effective work for the advancement of the interests of the regular grain dealers of Kansas.

The annual report of the Committee on Gambling of the Civic Federation shows that during the two last years that organization has investigated over 175 bucket shops and closed 146. It seems very likely that a national law will be enacted to stop the operations of the bucketshop men.

The sensational newspapers of Peoria published a lot of rot recently about the Illinois Grain Dealers' Association, which shows a remarkable disregard of the truth. In their despair the puny sheets hope to attract attention by publishing libelous articles regarding unincorporated organizations which are unable to sue for damages.

Country grain shippers who are troubled with shortages in their shipments should not hesitate to report all the particulars regarding the shipment to the Secretary of the Grain Dealers' National Association. That organization is keeping a shortage account with each terminal elevator and will institute an investigation where shortages become chronic.

The ordinary country merchant of a grain-growing district is delighted by the arrival of a new grain buyer in town, but deeply depressed if a peddler of his own line of goods appears. Every time the transient buyer institutes an overbidding contest with the established buyers the local merchandise dealers are overcome by a fit of joy, but when the old-established buyers are ruined by indulging in unreasonable bidding and the town is left without a grain market, the merchants recognize the folly of encouraging such competition.

In one department in the Argentine, says a report, in 19 days 764 tons of locusts and 9 $\frac{3}{4}$ tons of locust eggs were destroyed. If that ratio holds good, the "exportable surplus" of dead locusts in the Argentine will reach respectable proportions, no matter what becomes of the wheat crop. There is more picturesque lying done these days about the Argentine wheat crop than there ever was in politics. The surplus for export is placed all the way from 15,000,000 to 45,000,000 bushels; and even these figures are obtained by averaging the lies.

F. D. Coburn, Secretary of the Kansas State Board of Agriculture, is evidently determined that Kansas and her agricultural resources shall be properly advertised, if he has any say in the matter. His latest effort in that line is the "Beef Steer and His Sister," which is the report of the Board for the last quarter of 1897. It makes a volume of nearly 300 pages, relating to beef production and the crop and live-stock statistics of 1897. On the cover the "beef steer" is pictured standing on an enormous ear of

corn, the kind raised west of the Missouri River. Mr. Coburn is the "livest" of all the agricultural secretaries, and his work is always valuable.

The Indiana Supreme Court, in delivering a recent decision in a bank case, where the matter hinged on a bucket-shop transaction, took occasion to call the attention of the Legislature to the bucket-shop business as one that should be prohibited by law. The court compares the bucket shop to stud poker and faro, which we think is an unnecessary and uncalled for reflection on the gambler.

The barley dealers are depending less and less upon the gradings of the inspectors and more upon their own judgment. The chief inspector who will show enough independence of time-worn customs to establish new inspection rules, which will provide for reliable grading of barley according to its malting qualities, will receive the hearty thanks of the entire trade. The present inspection has proved useless and should be abandoned.

In Minnesota the state regulates the country elevators located on railroad right-of-way, whether the proprietors desire to operate as public elevators or not. The last report of the Supervising Inspector of Country Elevators shows that 1,179 country warehouses were licensed and that during the year forty-three samples were submitted to him to determine the proper grade and dockage and settle controversies between country buyer and farmer. The small number of applications does not emphasize a crying need for such supervision.

Senator Thurston of Nebraska endorses the Hennepin Canal project and broadens it out a great deal. He wants it made big enough to float a man of war, and, farther, he wants the Erie made into a ship canal, too. He thinks the funds of the proposed government postal savings bank could be used for this purpose with advantage all around. One result, he believes, of improving the waterways would be a saving of one-half of the people's annual freight bill. True, but a canal built with the funds of a bank not yet started does not regulate rates.

Interest in the pooling question seems to have lagged since the holiday recess of Congress. Possibly this is due to the fact that the railroads are not unanimous themselves in desiring a pooling measure. This rather extraordinary change of front on the part of the roads is another consequence of the recent decisions of the Supreme Court, shearing the Interstate Commerce Commission of its powers. The railroad men know that it would be impossible to pass a pooling measure through Congress, except it provided for supervision by the Interstate Commerce Commission of pooling contracts and rates. The railroads would thus lose the advantage which the Supreme Court's decision has given them, and they are not nearly so anxious for a permissive pooling measure as they were. Consequently there are now three parties on the pooling question; those who oppose legislation on the subject altogether, those who want it under the supervision and restriction of the Commission, and

those who want it with only nominal but not actual supervision. We do not believe there will be any legislation on the subject this session.

The shortage discussion has prompted many weighmen to be more careful in recording weights, as well as weighing. The transposition of figures is still a prolific source of trouble and will continue so until reliable automatic devices are designed for recording weights. However, weights will vary some as long as weighmen are careless and incompetent, and that will be always. It would be too much to expect weighmen to be infallible, but the differences can be greatly reduced by careful work at the scales, as well as careful cooping of cars.

The country elevator man who puts in good cleaning machinery is often startled by the quantity of dirt he is buying at wheat prices. All through the Northwest wheat is docked for dirt contained, from one-half to five pounds per bushel, and rightly so. If the regular buyers of other districts of the country had a little more backbone they would have stopped buying dirt of the farmers at grain prices long ago. At present many of them buy the dirt and then pay freight on it to a market where it is removed or the grain graded down on account of its presence.

The Kansas City, Pittsburg & Gulf road is getting itself excessively disliked by its Western and Southwestern competitors. It has been charged that the road has made a rate of 12 cents per 100 pounds on corn from Kansas City to Galveston and New Orleans, absorbing the elevator charges. This makes the lowest rate to tidewater from the Missouri River ever known. In spite of denials of the officials that they have cut the rate from 18 cents, prices of corn at Kansas City, Galveston and Chicago show that something is the matter. But, on the other hand, traffic officials in Chicago do not believe the statement, or at least say they do not. The equipment of the road is not large enough to carry much grain or frighten the other roads into rate reductions, it is said, and yet the Kansas City, Fort Scott & Memphis is believed to have cut its corn rate to New Orleans, and the Missouri, Kansas & Texas road to Galveston, to meet the Gulf road's rates. The Gulf road is apparently going to be the Peck's Bad Boy among the railroads.

The Kausas grain inspection, which was taken from the boards of trade by the last legislature and placed in charge of a department chief, is proving much more satisfactory to the trade.

The National Board of Trade at its recent meeting in Washington declared in favor of pooling by the railroads. The advocates of the pooling proposition were practically unanimous in favor of it, only when placed under the supervision and absolute control of the Interstate Commerce Commission, which should have absolute power to revise and correct excessive rates or other evils that might come to its attention. It was also developed that members of the Board, almost without exception, were agreed that the present arrangement is altogether unsatisfactory, and that the interstate commerce act should be amended in important particulars. The resolution favoring pooling, as submitted by Mr. Thurber, was finally adopted by a two-thirds vote.

Trade Notes

Aluminum is being tried for grain elevator buckets in Brooklyn.

Seeley, Son & Co., Fremont, Nebr., report inquiry and outlook good.

The National Association of Manufacturers will hold its annual banquet at the Waldorf-Astoria, New York City, on the night of January 27.

J. F. Zahm & Co., grain and seed dealers of Toledo, O., favored their friends with a New Year's remembrance in the form of a neat leatheret coin case.

Huntley Mfg. Co., Silver Creek, N. Y., reports business excellent, with orders coming in of sufficient size and number to keep them busy working overtime.

Following the recent rise in the price of leather belting of 25 per cent., the manufacturers of mechanical rubber goods have raised prices 10 per cent. on belting, hose, packing, etc.

The S. Howes Company, Silver Creek, N. Y., has issued its wall calendar for 1898, which it has sent to the trade, not forgetting the "American Elevator and Grain Trade." It will be pleased to mail a copy of it upon a receipt of a postal card to all who have failed to receive one.

Charter Gas Engine Co., Sterling, Ill., writes us that it has had the best business this year up to the holidays it has ever had. It has not been able to accumulate stock, and orders are pushing it. The company has shipped several engines the past month into Mexico, and has two on its order book now for Yucatan.

Chas. Kaestner & Co. of Chicago, Ill., are getting out two of their improved 3-high Chase-Kaestner Oat Cleaner, Clipper and Recleaners, which will handle oats with a shrinkage of less than 500 pounds to the thousand bushels. The machines in their tests show superior results and will be placed on the market early in February.

The Union Iron Works of Decatur, Ill., have issued a very handsome wall calendar and hanger intended for distribution to the trade. It is one of the most striking we have seen in this season of unequalled calendars. A box of overturned strawberries furnishes the artistic feature of the calendar. They are so natural that you can scent the delicious aroma.

The Invincible Grain Cleaner Co., Silver Creek, N. Y., has sold five Invincible Grain Cleaners to Rodrigues Gonzalez & Son of Saltillo, Mexico. The sale was made through Mr. J. L. Wheeler, the company's agent at Chicago. It is receiving quite a large number of orders for Invincible machines for export to various parts of the world, and the prospects for business during 1898 are very bright.

The Frontier Iron Works, Detroit, Mich., have under construction several large gasoline engines of their two-cylinder "Hicks" tandem type, and report the demand for this engine to be increasing. Among others are two 60-horse power engines for northern mills, and a 40-horse power engine for a local mill, besides several smaller engines. This company makes a specialty of large two-cylinder gasoline engines for mill work.

During a recent business visit at Peoria, Mr. John S. Metcalf, of John S. Metcalf & Co., Chicago, gave a local paper some interesting facts about the new elevator being built by his company at Manchester, England. The lumber for the elevator, of which 5,500,000 feet are required, is taken from New Orleans or Sabine Pass. With the exception of the engine and boilers, all the machinery comes from the United States and is furnished by Webster Mfg. Co. of Chicago. The elevator company wanted the structure inclosed in brick in order to give it a substantial appearance. Fourteen men were taken from Chicago, and the rest of the labor was hired on the ground. Mr. Metcalf says ordinary labor there is quite good, but the skilled labor is not so skilled nor so rapid as in this country. A planing mill was put up for this reason, to facilitate the work. The

cost of the building, which will be completed in April, will be about \$400,000.

The Marseilles Mfg. Co., Marseilles, Ill., between July 1 and January 1, kept from 130 to 170 men constantly employed, ten hours a day, and six days in the week. Naturally the company's business has been satisfactory. It is now manufacturing three sizes and 12 styles of the "New Process" Corn Sheller, six sizes and 60 styles of the "Cyclone," and three sizes and 30 styles of the "Adams" Shuck Sheller, so that it can meet any requirements.

Geo. M. Filstead has gone into the business of building grain elevators, and is now at 409 West Eighteenth Street, Erie, Pa. Mr. Filstead has been connected with the business in one capacity or another since 1848, when he served as water boy in the Tonawanda Commercial Elevator. Since that time he has worked for almost all the large elevator builders and contractors in this country, and for the past eight years has been with James Stewart & Co. With his long and varied experience, Mr. Filstead will, no doubt, be able to serve the public acceptably as a builder and contractor on his own account.

.. Points and Figures..

Examine your elevator heads now and then and make sure the bearings are not binding. A hot box often causes an expensive fire.

The report of Grain Inspector Wright of the State of Washington shows that 9,509 carloads of wheat, oats and barley were inspected during 1897, which would measure about 6,250,000 bushels.

Mr. Leiter is the greatest wheat raiser in the country, and Mr. Armour the greatest wheat producer (by rail), and neither is a president of an agricultural society.—Cincinnati Times-Star.

With a view to widening the European market, it is said that Senator Mason of Illinois will introduce a bill in the Senate providing for a special appropriation for a corn meal exhibit at the Paris Exposition.

The Connecticut Grain Dealers' Association met on the eveing of December 21, at New Haven, and indulged in a banquet at the Tontine Hotel. Eighteen members were in attendance, and President A. B. Heudec of New Haven presided.

During December the clearances at Galveston of wheat amounted to 1,230,400 bushels, against 180,300 for December, 1896, an increase of 1,050,370. Corn shows a falling off from 874,794 bushels in December, 1896, to 350,695 in December, 1897.

The exports of wheat from San Francisco for the year ending Nov. 30, 1897, amounted to 9,776,630 centals (100 pounds); for 1896, 12,106,939 centals; for 1895, 10,790,740 centals. The shipments of oats for the year ending Nov. 30, 1897, aggregated 29,827 centals.

One thing that militates against the introduction of corn meal in Europe is that on the continent bread is almost invariably eaten cold, while nearly all corn dishes should be eaten hot. A further reason is that this cannot be obviated so easily as would seem because the people in most places are not accustomed to bake bread at home, and the stoves are not adapted for baking corn bread and cakes.

Minnesota's Chief Grain Inspector reports the number of carloads of uncleared wheat which were subjected to dockage at the four terminal points of Minnesota during the last crop year was 145,789, of which 42,759 were docked one-half pound per bushel, 74,197 one pound, 19,830 one and one-half pounds, 6,073 two pounds, 989 two and one-half pounds, 1,152 three pounds, and 789 over three pounds, and at an average of four pounds. There were 11,989 cars on which no dockage was placed, 1,763 cars having been properly cleaned before shipment, and 10,226 cars being rejected and ungraded wheat upon which dockage is not imposed. The average rate of dockage per bushel at each point was as follows: Duluth, 15 ouuces; Minneapolis, 17 ouuces; St. Paul and St. Cloud, 18 ounces.

RANGE OF PRICES AT CHICAGO

The daily range of prices for cash grain at Chicago since December 15 has been as follows:

December.	No. 2 R.W. WHT		No. 2 SPG WHT.		No. 2 CORN.		No. 2 OATS.		No. 2 RYE.		No. 3+ BARLEY		No. 1 FLAXSEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
15...	97 1/2	97 1/2	25 1/2	25 1/2	22 1/2	22 1/2	45 1/2	46	46	46	46	46	46	46
16...	98	99	87 1/2	88 1/2	26	26	46	46	46	46	46	46	46	46
17...	99 1/2	100 1/2	26 1/2	26 1/2	22 1/2	22 1/2	46	46	46	46	46	46	46	46
18...	99	99 1/2	26 1/2	26 1/2	22 1/2	22 1/2	46	46	46	46	46	46	46	46
19...	99	101	26 1/2	26 1/2	22 1/2	22 1/2	46	46 1/2	46	46 1/2	46	46 1/2	46	46 1/2
20...	100	100	89 1/2	89 1/2	26 1/2	26 1/2	22 1/2	22 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
21...	99	99	26 1/2	26 1/2	22 1/2	22 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
22...	98 1/2	99 1/2	26 1/2	26 1/2	23	23	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
23...	99	99	27	27 1/2	23 1/2	23 1/2	47	47	47	47	47	47	47	47
24...	99	99	27	27 1/2	23 1/2	23 1/2	47	47	47	47	47	47	47	47
25*	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28...	97	98	27	27 1/2	23 1/2	23 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
29...	97 1/2	97 1/2	89	89	27	27 1/2	23 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2
30...	93	93	26 1/2	26 1/2	23 1/2	23 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
31...	93	94 1/2	27 1/2	27 1/2	23 1/2	23 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2	46 1/2
Jan.	1*	...	...	...	...	...	...	...	...	...	...	...	...	...
2...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4...	90	90	26 1/2	26 1/2	22 1/2	22 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2
5...	26 1/2	26 1/2	21 1/2	21 1/2	22	22	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2
6...	26 1/2	26 1/2	22 1/2	22 1/2	22 1/2	22 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2
7...	26 1/2	26 1/2	22 1/2	22 1/2	22 1/2	22 1/2	45	45	45	45	45	45	45	45
8...	26 1/2	26 1/2	23	23	45	45	45	45	45	45	45	45	45	45
9...	26 1/2	26 1/2	23	23	45	45	45	45	45	45	45	45	45	45
10...	26 1/2	26 1/2	22 1/2	22 1/2	22 1/2	22 1/2	45	45	45	45	45	45	45	45
11...	26 1/2	26 1/2	22 1/2	22 1/2	22 1/2	22 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2	45 1/2
12...	26 1/2	26 1/2	22 1/2	22 1/2	22 1/2	22 1/2	45	45	45	45	45	45	45	45
13...	26 1/2	26 1/2	23	23	41 1/2	41 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2	44 1/2
14...	26 1/2	26 1/2	22 1/2	22 1/2	23	23	45	45	45	45	45	45	45	45

*Holiday.

†Most of the barley on the market is now being sold by sample.

During the week ending December 18, Prime Contract Timothy sold at \$2.62 1/2@2.65 per cental; Prime Contract Clover Seed at \$5.15@5.20; Hungarian at \$0.60@0.70; German Millet at \$0.60@0.80; buckwheat at \$0.60@0.70 per 100 pounds.

During the week ending December 24, Prime Contract Timothy sold at \$2.65@2.67 1/2 per cental; Prime Contract Clover Seed at \$5.25@5.30; Hungarian at \$0.60@0.70; German Millet at \$0.60@0.80; Buckwheat at \$0.60@0.75 per 100 pounds.

During the week ending January 8, Prime Contract Timothy sold at \$2.65@2.67 1/2 per cental; Prime Contract Clover Seed at \$5.25@5.35; Hungarian at \$0.60@0.70; German Millet at \$0.60@0.80; buckwheat at \$0.60@0.65 per 100 pounds.

RECEIPTS AND SHIPMENTS AT PEORIA.

The receipts and shipments of grain and hay at Peoria, Ill., during the month of December, as compared with the same period of the preceding year, were, according to R. C. Grier, secretary of the Board of Trade, as follows:

Articles	Receipts.		Shipments.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	44,400	110,250	6,600	90,200
Corn, bushels.....	1,759,200	1,837,700	468,500	243,050
Oats, bushels.....	965,600	1,484,500	1,021,650	1,409,350
Barley, bushels.....	248,900	317,900	149,000	175,800
Rye, bushels.....	24,000	42,000	2,400	13,200
Mill Feed, tons.....	360	300	5,505	6,983
Seeds, pounds.....	120,000	176,000	30,000	90,000
Broom Corn, pounds.....	225,000	260,100	.....	.....
Hay, tons.....	5,700	5,130	1,665	1,900
Flour, barrels.....	30,089	29,760	27,650	25,700
Spirits and Liquors, bbls. ....	.....	.....	.....	.....
Syrup and Glucose, bbls. ....	.....	.....	.....	.....

RECEIPTS AND SHIPMENTS AT CINCINNATI.

The receipts and shipments of grain and hay at Cincinnati, Ohio, during the month of December, as compared with the same period of the preceding year, were, according to C. B. Murray, superintendent of the Chamber of Commerce, as follows:

Articles	Receipts.		Shipments.	
	1897.	1896.	1897.	1896.
Wheat, bushels.....	61,551	82,956	40,103	38,817
Corn, bushels.....	364,280	739,338	127,086	353,204
Oats, bushels.....	251,360	360,503	91,907	158,580
Barley, bushels.....	190,975	261,190	1,815	255
Rye, bushels.....	35,208	46,652	26,063	8,803
Clover Seed, bags.....	.....	.....	.....	.....
Timothy Seed, bags.....	.....	.....	.....	.....
Other grass seeds, bags.....	.....	.....	.....	.....
Hay, tons.....	12,857	6,932	9,414	1,992
Flour, barrels.....	286,798	217,163	253,361	180,027
Malt, bushels.....	.....	.....	.....	.....

According to many Kansas newspapers the grain dealers of that state are receiving orders for K

INSPECTED RECEIPTS AT CHICAGO

According to the report of Chief Grain Inspector E. J. Noble, the grain received at Chicago during December, 1897, was graded as follows:

WINTER WHEAT.

Railroad.	White.				Hard.			Red.				No G'de.	
	2	3	4	5	2	3	N	G	1	2	3	4	
C. B. & Q.	1	1	1	32	81	.....	.....	.....	.....	8	2	.....	.....
C. R. I. & P.	3	3	7	.....	.....	.....	.....	1	3	.....	.....	.....	.....
Chicago & Alton.	2	2	249	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illinois Central.	4	.....	10	.....	.....	.....	3	10	.....	.....	3	.....	.....
Freeport Div., I. C. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galena Div., C. & N. W.	26	13	.....	.....	.....	.....	3	7	.....	.....	.....	.....	.....
Wis. Div., C. & N. W.	2	.....	9	11	43	.....	50	35	6	6	2	.....	.....
Wabash. ....	.....	9	11	43	.....	.....	17	13	.....	.....	6	6	.....
C. & E. I.	1	3	1	2	73	1	5	23	.....	.....	.....	.....	.....
C. M. & St. P. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin Central. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicago & Great West.	2	.....	5	2	17	.....	4	8	1	.....	.....	.....	.....
A. T. & S. Fe.	5	2	17	.....	.....	.....	4	8	1	.....	.....	.....	.....
E. J. & E.	3	31	29	.....	.....	.....	17	13	.....	.....	6	6	.....
Through and special.	44	7	4	101	.....	679	77	11	4	.....	.....	.....	.....
Total each grade.	45	13	235	107	623	1	761	182	23	15	.....	.....	.....
Total winter wheat. ....	.....	.....	.....	.....	.....	.....	.....	.....	1,807	.....	.....	.....	.....

SPRING WHEAT.

Railroad.	Colo. rado.	Northern.	No Grade.				White.				Mixed Wheat.	
			2	3	4	5	4	2	3	2	3	
C. B. & Q.	6	1	591	53	1063	102	2	4	18	.....	7
C. R. I. & P. ....	.....	13	.....	131	46	3	.....	.....	.....	2	.....
Chicago & Alton. ....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Illinois Central.	155	1	60	1	1	1	.....	.....	.....	.....	.....
Freeport Div., I. C.	282	1	564	47	6	1	2	2	5	.....	.....
Galena Div., C. & N. W.	1,032	5	20	14	.....	.....	.....	.....	.....	.....	.....
Wis. Div., C. & N. W. ....	.....	3	2	2	.....	1	2	3	7	.....	.....
C. & E. I.	149	75	913	83	.....	.....	14	2	.....	.....	.....
C. M. & St. P.	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Wisconsin Central.	17	.....	3	6	.....	.....	.....	.....	.....	.....	.....
Chicago & Great West.	1	.....	3	47	2	1	.....	.....	1	.....	.....
A. T. & S. Fe. ....	.....	1	3	47	2	1	.....	.....	1	.....	.....
E. J. & E.	334	51	22	4	.....	.....	.....	.....	1	.....	.....
Through and special. ....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
Total each grade.	6	2	2,574	192	2,827	306	13	6	22	19	24
Total spring wheat.	5,994

CORN.

Railroad.	Yellow.			White.			2			4			No Grade.
	2	3	2	3	2	3	4	2	3	4	2	3	
C. B. & Q.	81	302	4	20	156	914	10	.....	.....	.....	.....	.....	.....
C. R. I. & P.	60	173	3	8	282	901	54	.....	.....	.....	.....	.....	.....
Chicago & Alton.	396	48	164	37	731	59	16	.....	.....	.....	.....	.....	.....
Illinois Central.	87	315	10	58	55	140	3	.....	.....	.....	.....	.....	.....
Freeport Div., I. C.	50	18	.....	.....	153	104	26	.....	.....	.....	.....	.....	.....
Galena Div., C. & N. W.	83	115	3	9	126	130	34	.....	.....	.....	.....	.....	.....
Wis. Div., C. & N. W. ....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Wabash.	315	32	166	53	237	47	6	1	.....	.....	.....	.....	.....
C. & E. I.	212	455	23	63	64	256	1	.....	.....	.....	.....	.....	.....
C. M. & St. P.	35	76	.....	4	180	214	25	.....	.....	.....	.....	.....	.....
Wisconsin Central. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chicago & Great West.	5	22	.....	.....	15	88	3	.....	.....	.....	.....	.....	.....
A. T. & S. Fe.	90	26	19	3	173	34	2	.....	.....	.....	.....	.....	.....
E. J. & E.	56	116	12	8	354	535	30	10	.....	.....	.....	.....	.....
Through and special.	92	234	1	2	129	188	4	1	.....	.....	.....	.....	.....
Total each grade.	1,562	1935	405	265	2,685	3611	213	13	.....	.....	.....	.....	.....
Total corn. ....	.....	.....	.....	.....	.....	.....	.....	10,689	.....	.....	.....	.....	.....

OATS AND RYE.

Railroad.	OATS.				RYE.				No Grade.				
	White.	4	2	3	W	*	No Grade.	4	2	3	2	3	
	4	2	3	2	2	2		4	2	3	2	3	
C. B. & Q.	82	2	1216	3	500	58	2	12	214			

CROP REPORTS

[Readers will confer a favor by sending us reports each month of the acreage and condition of growing crops, the amount of grain and hay in farmers' hands and stocks in store, for publication in this department.]

NEBRASKA, Deweese, Clay Co., Dec. 30.—Wheat is getting scarce, we are paying 73 cents. The wheat went into winter in fine shape.—F. E. PALLF.

OHIO.—The official report of the Ohio Department of Agriculture on the condition of crops and live stock, Jan. 1, 1898, is based on the reports received from township crop correspondents of the department, and represents the condition or prospect of crops and live stock as found from the returns up to January 1. It is as follows: WHEAT—Condition compared with an average, 67 per cent.; BARLEY—Condition compared with an average, 70 per cent.; RYE—Condition compared with an average, 72 per cent.; CORN—Condition in crib compared with an average, 91 per cent.; condition in shock compared with an average, 83 per cent.; proportion not yet husked, 12 per cent.; crop of 1896 fed to beef cattle, 14 per cent.; crop of 1896 fed to hogs, 38 per cent. The present condition of the growing wheat shows but a slight advance over the condition or prospect as reported for December 1. The month of December has been favorable to the wheat plant, nevertheless improvement has not been marked, which, owing to its weak condition and lack of root strength, is not at all surprising. In most of the counties wheat has held its own during the month, and in many others shows a slight improvement, so that on the whole there is an advance of four points as compared with December 1. Many correspondents report fields as well covered with snow, and if there is a fair amount of snow protection throughout the winter, without severe freezing and thawing, the wheat plant, though not of average strength, may still further improve and show well in the spring, but only such favorable weather conditions can bring good results.

MICHIGAN.—Department of State, Lansing, Jan. 11, 1898.—The ground in the principal wheat-growing sections of Michigan was bare of snow until about the 17th of December, and lightly covered from this date to the end of the month. The prevailing opinion among correspondents is that wheat was injured very little, if at all, during December. In answer to the question, "Has wheat, during December, suffered injury from any cause?" 47 correspondents in the state answer "yes," and 625 "no," and in answer to the question, "Has the ground been well covered with snow during December?" 87 correspondents in the southern counties answer "yes," and 284 "no;" in the central counties 41 answer "yes," and 114 "no," and in the northern counties 60 answer "yes," and 23 "no." The total number of bushels of wheat reported marketed in December is 1,371,738, and in the five months, August-December, 9,034,054, which is 3,344,811 bushels more than reported marketed in the same months last year. The average prices January 1 of some of the principal farm products in the markets where farmers usually market such products were as follows: The average price of wheat was 86 cents per bushel; of corn 28 cents, and of oats 22 cents, and the average price of hay was \$6.34 per ton. Compared with Jan. 1, 1897, there is an increase in the prices of all farm products named in this report excepting hay. The average price of hay is \$1.39 less than one year ago. The average increase in the price of wheat is 2 cents, of corn 5 cents, and of oats 4 cents per bushel. WASHINGTON GARDNER, Secretary of State.

WHEAT—Conditions and Supplies.—The special crop report of the New York Journal of Commerce and Commercial Bulletin, January 4, says: Final returns make the area of winter wheat 26,663,000 acres, as compared with 23,930,000 acres harvested last year, an increase of 11.4 per cent. The increase on the Pacific Coast, that is, in California, Oregon and Washington, is 4.5 per cent. the approximate area being 3,969,000 acres, as against 3,798,000 acres last year. There has been a material increase in wheat seeding in the Southern states, due to the low price of cotton. The increases are: North Carolina, 20 per cent.; South Carolina, 15; Alabama, 17; Mississippi, 22; Louisiana, 20; Texas, 19; Arkansas, 22; Tennessee, 20, and Kentucky, 15 per cent. In the more important wheat producing states North and West the increased acreage is: Ohio, 4 per cent.; Michigan, 16; Indiana, 4; Illinois, 40; Missouri, 10; Kansas, 19; California, 4; Oregon, 10, and Washington, 5 per cent. Favorable weather during December improved the conditions of wheat. The present average is 87.8 per cent., as against 84.1 per cent. last month. In the six principal states east of the Rocky Mountains, the improvement has been more noticeable. The condition now is 84.8 per cent., as compared with 79.5 per cent. December 1. On the Pacific Coast plant life is in nearly perfect condition. The average for Oregon is 99; Washington, 98, and California, 96. The average for the three states is 96.6 per cent., as compared with 94.8 per cent. last month. Unfavorable

results of drought and late seeding have been partially counteracted by favorable weather during the past two months. The temperature has been below normal, and thus far there has been no urgent need of snow protection. No damage reported from ice or freezing. The condition at 87.8 per cent. is equivalent to about 14.6 bushels per acre, indicating an aggregate winter wheat yield at date in the neighborhood of 390,000,000 bushels. According to the January returns, there are 240,000,000 bushels of wheat held on farms, which is 41.3 per cent. of last year's production. On the corresponding date last year there were held in the same position 190,000,000 bushels.

Late Patents

Issued on December 14, 1897.

Bean Picking Machine.—Edw. H. Cherry and Florence A. Cherry, Owosso, Mich. No. 595,523. Filed Jan. 9, 1897.

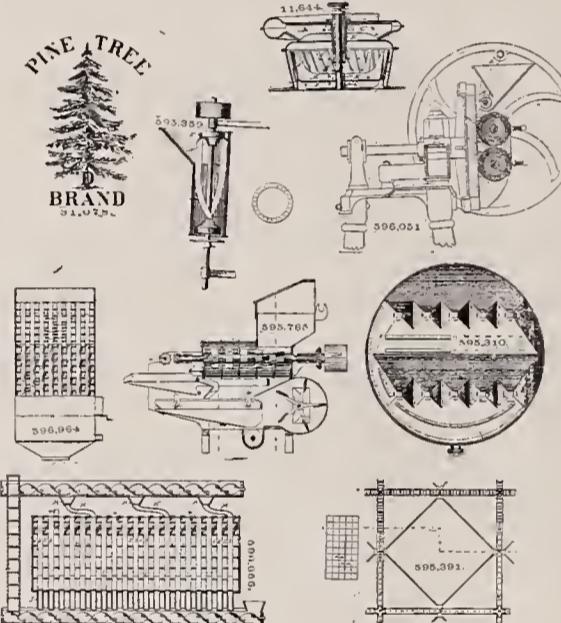
Corn Sheller.—Chas. A. White, Towanda, Ill. No. 595,359. Filed Feb. 23, 1897. See cut.

Gas Engine.—Albert L. Harbison, New Brighton, Pa. No. 595,625. Filed April 25, 1896.

Gas Engine.—Edwin Meredith, Batavia, Ill.—No. 595,489. Filed Sept. 18, 1895.

Gasoline Motor.—Donat Bánki and John Csonka, Buda Pesth, Austria-Hungary. No. 595,552. Filed Nov. 30, 1896.

Grain Elevator.—Ernest V. Johnson, Chicago, Ill., assignor of one-half to James L. Record Minneapolis, Minn. No. 595,391. Filed July 9, 1897. See cut.



Grain Tank.—Edgar D. Johnston, Connersville, Ind., assignor to the Steel Storage & Elevator Construction Co., same place. No. 595,310. Filed May 21, 1897. See cut.

Oil, Gas, or Like Engine.—Walter Rowbotham, Birmingham, Eng. No. 595,497. Filed April 30, 1896.

Printing Register for Weighing Scales.—Willis H. Sargent, St. Johnsbury, Vt., assignor to the E. & T. Fairbanks & Co., same place. No. 595,583. Filed March 12, 1897.

Issued on December 21, 1897.

Corn Sheller.—Wm. Colwell, Chillicothe, Ill., assignor to the Joliet Mfg. Co., Joliet, Ill. No. 595,765. Filed Feb. 24, 1896. See cut.

Issued on December 28, 1897.

Cooling Device for Explosive Engines.—Frederick W. Lanchester, Alvechurch, Eng. No. 596,271. Filed Nov. 30, 1896.

Gas Engine.—Jess B. Fenner, Buffalo, N. Y., assignor to the J. W. Ruger Mfg. Co., same place. No. 596,239. Filed Jan. 27, 1897.

Grass Curling and Baling Press.—Louise Wessel, North Judson, Ind. No. 596,255. Filed May 27, 1897.

Hay Press.—Isaac R. Stewart, Hope, Ark. No. 596,129. Filed Aug. 15, 1896.

Rice Huller.—Chas. A. Calvert, Buffalo, N. Y., assignor to the Geo. L. Squier Mfg. Co., same place. No. 596,051. Filed Dec. 14, 1896. See cut.

Centrifugal Grain Separator.—Frank F. Landis, Waynesborough, Pa. No. 11,644 (Reissue of No. 551,498.) Filed March 22, 1897. See cut.

Issued on January 4, 1898.

Starting Apparatus for Gas Engines.—Walker L. Crouch, New Brighton, Pa., assignor to the Pierce-

Crouch Engine Co., same place. No. 596,742. Filed April 5, 1897.

Gas Engine.—Clinton Guyer, Muncy, Pa. No. 596,809. Filed April 2, 1897.

High Pressure Gas Engine.—Wilhelm von Oechelhaeuser, Dressau, Germany. No. 596,613. Filed April 20, 1897. Patented in Belgium, Nov. 7, 1896, No. 124,436, and in France, Nov. 7, 1896, No. 231,086.

Grain Drier.—Wynn E. Ellis, Detroit, Mich. No. 596,964. Filed May 12, 1897. See cut.

Grain Drier.—Wynn E. Ellis, Detroit, Mich., assignor of one-half to Timothy Hurley, same place. No. 596,655. Filed Jan. 24, 1896. See cut.

TRADEMARKS.

[Issued since our last publication.]

"Pine Tree Brand." grass, clover, and field seeds and seed grains. The Albert Dickinson Co., Chicago, Ill. Used since Oct. 1, 1897. No. 31,078. Filed Dec. 9, 1897. See cut.

EGYPTIAN GRANARIES AND MODERN DISCOVERY.

A discovery in connection with that marvelous land of surprises, Egypt, says Implement and Machinery Review, has lately been made by Professor Petrie and his assistant, Mr. Quibell, working for the Egyptian Exploration Society, which is attended with interest for all connected with the storage and treatment of grain. The discovery referred to is that of a clay model of a granary of a class which must have existed in Egypt some 6,000 years ago, or 2,500 years before the time of Joseph. We have depended, hitherto, for our mental pictures of the storehouses, wherein the Hebrew premier guarded the nation's food, upon a Theban wall-painting of a later age, and upon the foundation courses which, in our own time, have been exposed by Dr. Naville upon the site of Pithom itself.

No granary of the thimble form has been preserved intact, for the reason that these works were usually constructed of unbaked brick, whether they comprised the barns wherein the country squire housed his own corn, or the long rows of kiln-like cylinders which served as the granaries of the state. The discovery which Professor Petrie has unearthed, and which has just been exhibited at London University College, puts us in possession of the actual form and construction of these amazing proofs of the stability of early economies. Upon each of three sides of a flat base there are erected four dome-topped cylinders, whose only aperture is contained in a ring at the top, filled up with a roughly made clay stopper. The cylinders are united at the shoulder by bands which are obviously retained by the potter for the purpose of strength, although it is not impossible that a similar gallery occurred in actual practice. Previous researches would lead to the conjecture that granaries of this description may have had a diameter at the base of eight or nine feet; and, in any event, this has been shown to be the case in the remains of granaries of Joseph's age. The aperture at the top need not have had a greater diameter than twelve or thirteen inches.

The pictorial records suggest that the top was reached by means of a portable ladder, and that the grain was drawn from the floor level through a vertical trap, in the manner of the suburban dust-bin. The fourth dynasty model under discussion, however, has no such outlet, and although Mr. Quibell suggests that the model is to this extent imperfect, it may be borne in mind that granaries capable of being emptied from the top only have been shown by other explorers to have certainly existed. The form of the storehouse was obviously dictated by the necessity of excluding rats and other vermin, and also of minimizing the risk of theft. In this model the stoppers are of clay, but this would not be inconsistent with the presence of wooden lids in the buildings themselves.

No traces of ensilage have yet been found. The indications are that the granaries were built to a uniform capacity, and the mural records show that the grain, after being trodden out by oxen, was put into sacks of a known size in the presence of a tally clerk, and their contents shot in by a stevedore, who brought the empty sack down the ladder with him. Where grain was warehoused in sacks for the purpose of immediate distribution, it would naturally have been kept in storied houses of the normal type. No corn sacks of this remote age have been recovered, but exploration becomes more and more hopeful every day of something of this kind turning up.

Says the Duluth News-Tribune: "The charges for storage and handling are half a cent a bushel better here than at Chicago, and the Great Northern Road seems determined to encourage the hauling of corn to the head of the lakes. This road is delivering corn here now, and is, in fact, handling almost all of it that is now coming."

WATERWAYS

The steamer *Algon* recently sailed from Tacoma, Wash., bound for Africa, with a cargo of 377,509 bushels of wheat, valued at \$312,000.

There were 74 vessels cleared from Puget Sound during 1897. They carried 2,927,341 centals of wheat, and 422,682 barrels of flour for foreign ports.

It is reported that a new Canadian canal will be commenced in the spring. It will extend from the Great Lakes via Georgian Bay, the Nipissing and Ottawa rivers to Montreal.

The average barge rate for wheat from St. Louis to New Orleans last year was 5 cents a bushel, and it is expected that the new steel barge line soon to be established will reduce the rate to 3 cents.

A boat which is designed to be the largest of all grain-carrying lake vessels is being constructed at the shipyards at South Chicago, Ill. It will be known as the *William R. Lynn*, and it is expected that it will carry 6,000 tons on a seventeen-foot draft.

A very large amount of grain is being exported this winter via Portland, the Grand Trunk terminus for ocean traffic. The business being done is about five times as large as last year. The new elevator, with a storage capacity of 1,000,000 bushels, has all it can handle.

It is the prevailing opinion that next season the elevator charges at Buffalo, N. Y., will drop 50 per cent. Chicago vesselmen say that the elevator which *Armour & Co.* and *Bartlett, Frazier & Co.* built on joint account at Buffalo has fully paid for itself. About 20,000,000 bushels of grain were handled during the season.

The export grain trade was in a very serious condition at Galveston, Texas, during the first part of January. With elevators "A" and "B" filled, and 400 grain laden cars on the wharves, and 1,000 more in the yards, there were only nine steamers at the wharves, and nearly all of them were loaded. The 75 steamers chartered were delayed by the heavy fog on the gulf.

Revenue Collector Penrose A. McClain, a prominent member of the Commercial Exchange of Philadelphia, Pa., went before the Board of Directors at a recent meeting to have the Exchange take action in support of the ordinance which had been introduced by Mr. McClain in Councils, providing for an appropriation of \$250,000 out of the first moneys received by the city from the lease of the gas works, to be expended in dredging and deepening the channel of the Schuylkill River from Gray's Ferry Bridge to mouth.

A largely attended meeting of New York State canal boat owners was held at New York City December 30, at which resolutions were passed urging the erection by the state, of grain elevators at Buffalo and New York. The resolutions declare that this action "would guard the state's essential grain traffic from the wanton attacks of the railroad grain elevator trust." It was also resolved that "New York's antiquated canals, now undergoing a snail-like process of improvement, should speedily be enlarged to their fullest capacity."

A fleet of 10 vessels arrived at Buffalo, N. Y., about the time of closing of navigation, carrying 2,000,000 bushels of grain. This fact is significant when it is considered that 25 years ago it would have required over 60 vessels of the average size of lake craft of that time to carry that amount of grain. The completion of the 20-foot channels between the Great Lakes enables vessel owners to build still larger crafts than ever, and there now only remains that the principal lake ports shall prepare themselves to be able to receive these large freighters.

The aggregate shipments of grain via the Erie Canal in 1862 amounted to 52,376,500 bushels; in 1870, 28,966,780 bushels; in 1880, 71,699,265 bushels; in 1890, 38,218,960 bushels; in 1894, 48,428,521 bushels; in 1895, 20,064,613 bushels; in 1896, 35,868,996 bushels, and in 1897, 23,848,621 bushels. The number of boats cleared from Buffalo by Erie Canal for the season of navigation in 1882 aggregated 6,613; in 1889, 6,024; in 1893, 7,722; in 1894, 6,621; in 1895, 4,522; in 1896, 5,876, and in 1897, 4,609. The shipments by rail of wheat, corn, oats, barley and rye amounted to 94,285,000 bushels in 1895; 120,983,000 bushels in 1896, and 164,068,000 bushels in 1897.

There is great disappointment expressed at the decrease in traffic on the Erie Canal in spite of the improvements in progress. As the state is expending \$9,000,000 in making improvements, it is certainly not encouraging when there was a decrease on the five canals comprised in the New York system from 3,714,894 tons in 1896 to 3,617,804 tons in 1897. On two of the least important of the canals—the Black River and the Cayuga and Seneca—there was an increase from 112,692 tons to 181,724

tons. On the most important, however, where the greatest improvement was expected, there was a marked decrease. On the Erie the falling off was from 2,742,438 tons to 2,584,916 tons.

The city of Milwaukee, Wis., wants a 20-foot channel so that the largest vessels can enter that harbor without trouble. The rivers of the city are dredged to an average depth of only 17 feet. The common council of the city adopted resolutions recently requesting the city attorney and city engineer to draft a memorial to Congress setting forth the urgent necessity of an appropriation sufficient in amount to deepen the city's waterways to 21 feet.

The grain trade of the port of Baltimore, Md., has increased very largely the past year, relatively faster than that of competing ports. The city now ranks second in wheat exports, while occupying the first place as regards corn. From January 1 to December 4 the exports of corn amounted to 39,943,616 bushels, against 22,497,949 bushels; of wheat, 14,414,453 bushels, against 6,531,115 bushels, and of oats 4,917,556 bushels, against 4,803,076 bushels.

A memorial to Congress asking for the improvement of the Chicago River was adopted December 30 by the committee representing the common council, the municipal government and the commercial organizations of the city of Chicago. The memorial asks that a 20-foot channel be extended from deep water to the docks and wharves along the river. It calls attention to the vast transportation benefits that have accrued from deepening the communications between the great lakes. The channels now admit vessels drawing between 16 and 17 feet.

The state engineer of New York has made the discovery that to deepen the Erie and Oswego Canals to a depth of 9 feet, and the Champlain Canal to a depth of 7 feet, 456 miles in all, will cost \$16,000,000 or more than one-fourth of the total expenditure for the original construction and for all the improvements which have been made on the three canals since their completion. It is shown that contracts have been made that will call for the expenditure of \$7,121,812 of the \$9,000,000 which the people authorized the state to borrow for this improvement, and that \$7,000,000 more will be required to complete the work.

OBITUARY

John N. Mills of Wheeler, Mills & Co., Hopkinsville, Ky., grain and tobacco commission merchants, died recently.

Sylvester Marr, grain, flour and feed merchant of Portland, Me., died very suddenly January 1. He had been in ill health for some time, and was 67 years of age.

Baltimore T. Cooper, a retired grain merchant, died at his home in Kansas City, Mo., January 6. He was 50 years of age and removed to Kansas City from Grand Pass, Mo., about 11 years ago.

William Kuecker Sr., a member of the Chamber of Commerce, and a resident of Milwaukee, Wis., since 1842, died at his home on January 1, of cancer of the stomach. Mr. Kuecker was born in Prussia 57 years ago.

Edward C. Smith, a well-known grain dealer, died at Des Moines, Iowa, December 18. He was born at Brookville, Ind., in 1843, served as a soldier throughout the war, at the close of which he settled in Des Moines.

Oscar T. Martin, of the firm of Martin Bros., wholesale grocers and grain dealers at Chattanooga, Tenn., died January 1. He was born in Mississippi in 1849, and with his two brothers he organized the above firm in 1874.

Andrew Nikola, a prominent grain buyer at Burton, Geauga County, Ohio, committed suicide at his boarding house at that place on December 8. He was about 45 years of age and unmarried. He had been drinking heavily.

Jas. Kirtley, treasurer of Benton County, Indiana, committed suicide by shooting himself on December 29 at Fowler. He was 62 years of age, and for a long time was engaged in the grain business at Chase and later at Boswell.

The death of Mr. James E. Tate occurred at Baltimore, Md., on December 11. He was senior member of the grain commission firm of Tate, Muller & Co. of that city. He was 62 years of age and had been in the grain commission business continuously since 1869.

Col. Charles E. Kearney died at Kansas City, Mo., January 3, of Bright's disease. He was born in Ireland in 1820. He came to America at the age of 16. Col. Kearney was one of the earliest business men of Kansas City, and figured prominently in the most vital points in

its history—the building of the first railroad and the first bridge across the Missouri River at that point. After the war he devoted himself to the real estate and grain business.

Otto Ewe died at his home in La Crosse, Wis., December 6, in his sixty-third year. He was for many years engaged in the grain business, first at Milwaukee, and later at Winona and La Crosse, but retired about four years ago.

David W. Dickson, president of the Philadelphia Traction Company, died very suddenly recently at his home in Philadelphia. For some years previous to 1874 he was in the grain business and had his office in the Commercial Exchange building. He was 63 years of age.

A. O. Ticknor, well known on the Chicago Board of Trade some years ago as a grain speculator, died Christmas morning at his home in Chicago. He had met with but indifferent success for the last 25 years, and misfortunes had brought many mental and physical infirmities. He was 70 years of age.

Col. Stillwell H. Wakefield, well known in Louisville, and in Shelby County, Ky., died December 23 at his home near Wilsonville. He was at one time very wealthy and was a large stock and grain dealer. He was 70 years of age, and would have celebrated his fiftieth wedding anniversary next month.

Chas. T. Hyne died at Brighton, Mich., on December 17. He was a native of Prussia, emigrated to America in 1840 and settled in Brighton, Livingston Co., Mich., where in 1872 he built the first weight elevator at that point. He continued the business until 1891, when he was succeeded by his son, Frederick T. Hyne.

Henry Edson Broughton, for 24 years a member of the Chicago Board of Trade, died at the residence of his son, John W. Broughton, in River Forest, Ill., January 1, of Bright's disease. He was born in Washington County, New York, on Sept. 21, 1833. He came West, to Minnesota, in 1853, and engaged in mercantile pursuits and remained to Chicago in 1870. In 1875 he became a member of the Board of Trade.

Ira Tomblin, for 35 years an active member of the Chicago Board of Trade and head of the commission firm of Ira Tomblin & Co., passed away at his home December 31, after being afflicted several months with cancer of the stomach. He was born in 1831 on a farm near Plano, Ill., and in 1862 came to Chicago from Aurora. With his brother he formed the commission firm of Tomblin Bros. & Co., which afterward was changed to Tomblin & Co. Last spring Mr. Tomblin became sick, and since then was not regularly at his office.

The stock fire insurance companies which always pay losses—when they get ready—are among the number that have refused to settle their portion of the loss on Pacific Elevators A and B, burned at Chicago Nov. 27, 1896. Many mutual fire insurance companies have been organized to carry the fire risks of a special line, and most of them have proved very successful.



A FEW TERMS USED BY GRAIN INSPECTORS.

ELEVATOR & GRAIN NEWS

J. W. Himes is buying grain at Campbell, Iowa.

O. James has sold out his grain business at Loudon, Tenn.

W. D. Heath is building an elevator at Elbing, Kans.

Walter Coates has opened a grain store at Heath, Mass.

Timothy C. Kilty is buying grain at Stillwater, Minn.

H. D. Zoll is building a grain warehouse at Bernadotte, Ill.

Peter Ehlers is preparing to build an elevator at Minden, Iowa.

James Beerink has leased the Stanton Elevator at Waupun, Wis.

Wm. Kuehn has purchased Mr. Hawks' elevator at Juneau, Wis.

James M. Dunlap will build a grain elevator at Lithopolis, Ohio.

Jas. Pratt of Lohrville, Iowa, has leased the elevator at Luther.

A \$4,000 grain elevator was recently completed at Waldron, Ind.

A. L. Landis is enlarging his grain warehouse at Bowmansdale, Pa.

The Rogers Grain Co. of Chicago is building corn cribs at Sibley, Ill.

A 6,000-bushel elevator was recently completed at Clear Lake, Iowa.

A. Grant has sold his elevator at Churdan, Iowa, to M. E. Blazer of Jolley.

The elevator at Clay Center, Nebr., has been purchased by W. H. Ferguson.

Hopps & Co. of Baltimore, Md., are to build a granary at Centerville Landing.

E. W. Finch has sold his elevator at Talbot, Ind., to a Mr. Yeryan of Copay, Ill.

It is reported that an elevator will be built at Croswell, Mich., next spring.

P. Phauestock & Co. have purchased Spies & Son's elevator at Osgood, Iowa.

Burkitt & McIntyre have purchased S. R. Harry's grain business at Pittwood, Ill.

Jas. L. Reese has succeeded Recse Bros. in the grain business at Dodgeville, Wis.

Hill & Finch have succeeded E. F. Smith in the grain business at Holstein, Iowa.

J. P. Shoemaker has closed his grain warehouse at Middletown, Ind., for this season.

G. Crossman has succeeded Jones & Crossman in the grain business at Fulda, Minn.

Earnest Bentke has sold his elevator at Earlville, Ill., to George Mundie of Mendota.

An addition is being built to the office of the Crescent Grain Co. at McLean, Ill.

Bursell & Klinefelter, dealers in grain at Elmore, Minn., have dissolved partnership.

Biggs & Hoit, wholesale grain dealers at St. Paul, Minn., have dissolved partnership.

Gray, Babcock & Sears, dealers in grain and coal at Ida Grove, Iowa, have assigned.

The wholesale grain firm of Shearn & Cranston at Houston, Texas, has been dissolved.

John Hanslow and C. B. Sherwood have entered the grain business at Kahoka, Mo.

Henry Allen has purchased the grain business of G. B. Strickland at West Minot, Me.

Wise Bros. have bought the grain and feed business of Robt. White at Villisca, Iowa.

W. C. Harvey has leased the Davenport Syrup Refinery cribs and elevator at Marne, Iowa.

Z. Graft has commenced work on his new elevator at Middletown, Ill., on the new line of railroad.

O. P. Le Compte & Co. have leased and are operating the Van De Mark Elevator at Clyde, Kans.

Louis Rollman and Henry Johnson have built an elevator 24x60 feet at Suring, near Shawano, Wis.

Marshall & Mitchell, grain dealers of Joplin, Mo., are about to open in the implement business also.

Eppinger & Co. of Portland, Ore., have chartered the steamer Bak Ling to carry 7,000 tons of wheat from Tacoma, Wash., to Europe. Tacoma business

men are flattered at the entrance of this large exporting firm into the shipping of that port.

J. L. Norris has succeeded A. Norris & Son in the grain and general store business at Casnovia, Mich.

A. Schwearman and Joe Dietz are said to be contemplating the erection of an elevator at Gilmer, Ill.

Carrington, Hannah & Co. have added a new power house to their elevator plant at Blackstone, Ill.

A Chicago grain company is said to be considering the erection of a large elevator at Keokuk, Iowa.

J. E. and Abe McDonald have leased the C. M. & St. P. Ry. Elevator at Portage, Wis., and will buy grain.

The Meriden Grain & Feed Co. has been incorporated at Meriden, Conn., with a capital stock of \$25,000.

The Collin County Milling Co. at McKinney, Texas, has a 100,000-bushel elevator in course of erection.

The Chalfant-Burrough Grain Co. is building a new engine house at its Star Elevator in Kansas City, Mo.

The Barnard & Leas Mfg. Co. recently furnished the Webster Mfg. Co. of Chicago two No. 4 elevator separators.

Albert Putney has purchased the grain and coal business of Wilson T. Howe & Co. at East Brookfield, Mass.

The Middle Division Elevator at Anchor, Ill., was closed down for about ten days during the holidays to make repairs.

The Farmers' Mutual Coöperative & Shipping Association of Verona, Nebr., has been succeeded by H. L. Chalberg.

Carman & Foulds, the grain and hay dealers of Kalamazoo, Mich., expect to build a new elevator in the near future.

Among recent sales of Victor Corn Shellers by the Barnard & Leas Mfg. Co. is one to Fairbanks, Morse & Co., Chicago, Ill.

It is said that the Northwestern Elevator which was recently burned at Bathgate, N. D., will be rebuilt in the spring.

W. D. Castle & Co., whose elevator at Gridley, Ill., was recently destroyed by fire, have a new building now well under way.

Phillips Bros. have sold their elevator at Parnell, Ill., and will remove to Milmine, where they have purchased an elevator.

Staninger & Co. have opened a branch office at Charleston, Ill., which will be in charge of J. A. Monfort as grain buyer.

Parrish & Lindsay of Brandon, Mont., have retired from the Manitoba Grain Co. and are handling coarse grain and produce.

M. Le Roy, of the grain firm of M. Le Roy & Son at Hamilton, Ill., will retire from business on account of failing health.

Fred Soule is remodeling a building at Rangeley, Maine, and will put in a stock of grain and feed in connection with groceries.

Alfred Whitaker recently removed from Sabina, Ill., to Francisville, Ind., where he purchased a grain elevator and a farm.

E. G. Knight & Son have purchased the old mill site at the railroad crossing, Monticello, Ill., and will erect a large elevator.

W. W. Stephens & Co. of Chicago recently purchased a Little Victor Corn Sheller and Cleaner from the Barnard & Leas Mfg. Co.

J. A. Augspurger & Son of Farmer City, Ill., have started a wholesale grain business at the former stand of E. S. McClure & Co.

It is said that the Southern Grain Co. contemplates the erection of a large elevator at Kansas City, Mo., in the near future.

The grain warehouse of Cook, Bentz & Co. at Dillsburg, Pa., which was destroyed by fire on December 1, is being rebuilt.

R. S. Warnock, A. A. Reid and Walker Bros. have formed a partnership at Magnolia, Ark., under the name of the Magnolia Grain Co.

The Farmers' Elevator Co. is buying grain at Leonard, the new flag station east of Gilman, Ill. Its elevator is not yet completed.

The E. H. Pease Mfg. Co., Racine, Wis., was a recent purchaser of a Little Victor Corn Sheller from the Barnard & Leas Mfg. Co.

The International Export Grain and Oil Co. of Kansas City recently purchased 25 acres of land in Kansas City, Kans., extending from the Missouri

Pacific tracks to the Missouri River. It is said that the company proposes to erect a large elevator and feed mill on this property.

The Pantagraph of Bloomington, Ill., says there are prospects of an immense glucose plant being built in that city in the near future.

Duke & Ebelsheimer will have charge of the Iowa Central Elevator at Hedrick, Iowa, which was recently leased by Z. T. Palmer & Co.

Brooks, Griffith & Co., Minneapolis, Minn., have purchased a No. 68 Cornwall New Method Oat Clipper from the Barnard & Leas Mfg. Co.

The Rockford Sugar Refining Co. of Rockford, Ill., has been succeeded by the Glucose Sugar Refining Co. The plant is shut down at present.

A 60,000 bushel addition to the Standard Cattle Co.'s elevator at Ames, Nebr., has just been completed by Seeley, Son & Co. of Fremont.

The Geiselman Company has been incorporated at Houston, Texas, with a capital stock of \$20,000, to buy and sell all kinds of food products.

Wilson Creveling of Tuscarora, N. Y., has purchased the old Presbyterian Church at Union Corners, and will convert it into a grain house.

The Barnard & Leas Mfg. Co. has furnished the Waterous Engine Works of Winnipeg, Man., with one No. 35 Barnard Special Grain Separator.

The Middle Division Elevator Co. purchased the Summerville Elevator on the C. & A. R. R., south of Pontiac, Ill., and took possession January 1.

Leases have been granted to J. L. Eyrse and F. J. Rapp to build elevators alongside the new St. Louis, Peoria & Northern Railroad at San Jose, Ill.

Wing's elevator at Maquon, Ill., is completed. It is a substantially built structure covered with steel siding, and has a capacity of 15,000 bushels.

The Blair Milling Co. of Atchison, Kans., is conducting negotiations with a view to opening and operating the Santa Fe Elevator at that place.

Jacob Balthaser has sold his elevator at Amanda, Ohio, to Justin J. Stevenson of Columbus, who will remove to Amanda and conduct the business.

The Lamonte Milling & Grain Co. has been incorporated at Lamonte, Mo., by M. H. Morris, C. W. Rudy and E. R. Morris. Capital stock \$12,000.

The Wichita Grain & Stock Co. of Wichita, Kans., was incorporated last month, the directors being A. S. Pierce, W. E. Pierce, and W. H. Bertholf.

Nelson Brouilette of St. Anne, Ill., who has been in the lumber, coal and implement trade for several years, has lately embarked in the grain business.

The Des Moines Mfg. & Supply Co. of Des Moines, Iowa, has purchased a Little Victor Corn Sheller and Cleaner from the Barnard & Leas Mfg. Co.

The C. B. & Q. Elevator at Hastings, Nebr., has recently added to its equipment a No. 5 Barnard Separator made by the Barnard & Leas Mfg. Co.

Paine Bros. & Co. of Milwaukee, Wis., have leased the Tibbett Elevator at Fond du Lac, Wis. Messrs. Morris and Drake will have charge of the buying.

Kellogg & Deur's elevator at Missouri Valley, Iowa, is receiving the finishing touches at the hands of the builders, Seeley, Son & Co. of Fremont, Nebr.

The side track of the Illinois Central R. R. at Easton, Ill., has been extended to allow the new Farmers' Elevator to load direct from bins to cars.

Under a government contract the Phillips Seed Co. of Toledo, Ohio, sent out by mail on January 4 15,000 packages of seeds. Other shipments will follow soon.

The Optic of Quincy, Ill., says that L. R. Cottrell, a grain dealer of Omaha, Nebr., is considering the matter of building a large elevator at the former place.

Sheldon & Beebe at Mendon, Mich., have failed. The liabilities are reported as about \$5,000, and a number of farmers have wheat stored in the elevator.

Ora Finch, who recently removed from Darlington to Jamestown, Ind., where he purchased G. O. Roberts & Son's grain business, is now building an elevator.

J. H. Pope's grain office at Roseland, Nebr., was entered one night last month, and the safe blown open. The robbers secured only a few cents in stamps.

The south end of the big Maple Leaf Elevator at Kansas City, Kans., recently settled several inches. A deep drainage sewer is being put in to turn away the water, after which the building will probably be raised.

F. D. Paddock and James Hodge have sold their two-thirds interest in the firm of Paddock, Hodge & Co., Toledo, Ohio, to Justice H. Bowman, the third member of the firm. The sale was completed on January 8, and includes the Miami Maize Mills and

1,000,000-bushel elevator at Toledo, and 20 elevators on the Clover Leaf Railway—8 in Ohio, 7 in Indiana, and 5 in Illinois.

Wheat stored in the north end of Kidd's flour mill at Prince Albert, Sask., recently burst out the walls and made almost a complete wreck of that end of the mill.

James M. Dunlap of Circleville, Ohio, has sold his elevator at Hayesville to New York parties. Willis Ludwig will superintend the elevator for the new firm.

The Manitoba Grain Co. has closed its elevator at Burnside, Man., for the season, while the Farmers' Elevator is open for business but one day in two weeks.

It is reported that L. E. Cowdery, who has for seventeen years been engaged in the grain business at Kasson and Mantorville, Minn., has made an assignment.

Penberthy, Cook & Co., the wholesale grocers and produce dealers of Menominee, Mich., contemplate building an elevator of large capacity on their dock next spring.

Ed. Helwig has removed from Attica to Ash Grove, Ind., where he has put in cribs, dumps and scales, and is doing a good business. He will shortly erect an elevator.

W. W. Cargill & Co. recently placed in their grain warehouse at Janesville, Wis., a Victor Combined Corn Sheller and Cleaner made by the Barnard & Leas Mfg. Co.

Kiddoo Bros. & Co., who have recently completed a 125-barrel flouring mill at Neosho, Mo., will at once proceed to erect a 30,000-bushel elevator just north of the mill.

It is reported that the erection of a large elevator at Guthrie, Ky., is contemplated by northern parties who are now in correspondence with Claud Mimms, the Guthrie banker.

The erection of a grain elevator at Montgomery, Ala., is being talked of. Among the promoters of the plan are Joseph Stilwell of that place and E. P. Caywood of Huntsville.

James Reichelderfer of Circleville, Ohio, has purchased the site on which the Sunderman Elevator recently burned, at Amanda, and intends to build a new elevator at once.

The elevator which forms a part of the plant of the Model Roller Mills at Tecumseh, Nebr., has been leased by Chicago parties, who made some repairs before placing it in operation.

The elevators recently purchased by the Trans-Mississippi Grain Co. at Henderson, Inland, Millerston and Linwood, Nebr., are being remodeled by Seeley, Son & Co. of Fremont.

The Turner-Hudnut Co. began filling their newly completed 40,000-bushel storage tank at Pekin, Ill., on January 1. It is said that this company expects to erect a twin tank in a short time.

The business men of Whitewater, Wis., have offered the Coburn Elevator, rent paid, to Paine Bros. & Co. of Milwaukee, and this firm will soon have a grain buyer in charge there.

Runyon & Wurtzer purchased the Sheffield Elevator at Geneva, Iowa, and took possession January 1. The former owners were T. Thomas of Sheffield and G. H. Thomas of Geneva.

F. W. Hough of Woodhull has built corn cribs at Viola, Ill., and W. K. Stitt is buying grain for him there. It is stated that Mr. Hough expects to build an elevator at that point in the near future.

Geo. H. Cary, junior member of the firm of L. J. Haddill & Co., Lapeer, Mich., has purchased the interest of his partner in the large grocery, grain elevator and other business which they conducted.

According to The Eagle of Wichita, Kans., Capt. J. M. Phillips of Chicago has expressed the opinion that Wichita ought to have a large grain elevator, and intimated that he might build one there in the spring.

The Whitney-Noyes Seed Co. is removing its headquarters from Binghamton to Buffalo, N. Y., where it has leased and is fitting up a warehouse. The company will still operate a warehouse at Binghamton.

Carrington, Hannah & Co.'s new 12,000-bushel elevator at Wilson, Ill., was started on December 20, and everything run as smoothly as could be desired. The work was in charge of Lewis Richards, foreman of construction. J. M. Maguire is the buyer in charge.

A story is current to the effect that Joseph Barber, a grain dealer at Huntley, Minn., who left home last year, leaving debts of several thousands of dollars, has been operating on the Chicago Board of Trade with two men as partners. By loading up with wheat at 66 cents they are said to have cleared

\$90,000. It is further stated that Barber will now return from Canada and make good his deficiencies, which were the results of speculation.

R. E. Pratt & Co. are replacing two 140 feet spiral conveyors in their transfer elevator at Omaha, Nebr., with a 24-inch belt conveyor. Seeley, Son & Co. of Fremont, Nebr., have the contract for this work.

President Charles Van Nostrand, of the New Orleans & Western R. R., recently stated that a large modern elevator would be built at Port Chalmette, New Orleans, in the near future, but just when he did not say.

A. W. and C. F. Barrow have sold to W. D. Cooper of El Paso a half interest in the elevator and grain business of Richardson & Co., Elliott, Ill. The new firm is known as Richardson & Cooper, and took charge January 1.

E. H. Florence & Co. are overhauling their elevator at South Charleston, Ohio, adding new shellers and cleaners. The contract for the machinery and supplies has been placed with The Case Mtg. Co., Columbus, Ohio.

The Winter Elevator and Milling Co., Pleasant Plains, Ill., has been incorporated with a capital stock of \$20,000 by Smith Winter, A. Atherton, W. G. Purvives, S. S. Purvines, Thomas Wilson, H. Kundig and John M. Howard.

Humphrey & Holdrege recently shipped eleven cars of barley, containing 10,500 bushels, from Honeoye Falls, N. Y., to New York City. It is said to be the largest single shipment of grain ever made from that place by one firm.

R. Monarch, for himself, the Glenmore Distilling Co., and the Eagle Distilling Co. of Owensboro, Ky., recently made an assignment to the Columbia Finance & Trust Co. of Louisville. The assets and liabilities are estimated to be each about \$750,000.

The L. & N. R. R. Co.'s 500,000-bushel elevator at Pensacola, Fla., was completed just before Christmas. It has been leased to Otto E. Lohrke & Co., a grain firm of New York City, with Mr. J. W. Whiting of that city as superintendent and chief grain inspector.

Firemen were kept at work for ten days smothering the fire in the ruins of Richardson & Sons' elevator at Kingston, Ont.; \$15,000 worth of grain was saved. The elevator is about to be rebuilt on a new site, and will be 50x100 feet, with a capacity of 200,000 bushels.

The Sworts Produce Co., Ltd., has been incorporated at Dundee, N. Y., to do a general grain and produce business. The capital stock is \$10,000. The new company succeeds to the business of C. R. Sworts, who becomes its secretary, and Wm. C. Sworts its president.

The grain firm of Tate, Muller & Co., Baltimore, Md., having been dissolved by the death of Mr. James E. Tate, Messrs. Louis Muller, John M. Dennis, Ferdinand A. Meyers and E. Olmstead Boyd have formed a partnership to continue the business under the same name.

The citizens of Halifax, N. S., failing to secure the co-operation of the Dominion government in rebuilding the elevator which was destroyed by fire on the docks at that city, have appealed to the city council. That body is now considering the proposition of borrowing \$125,000 to be used for a new elevator.

The new addition to the Cargill Elevator at Green Bay, Wis., will be known as Elevator B. It is being equipped with a splendid system of fire protection. The small elevator on the east side of the city will be known as Elevator C. The company has been taking in grain at this house at the rate of 2,500 bushels per day.

The Consolidated Elevator Co. of St. Louis, Mo., has opened its Central Elevator A, the last empty house controlled by that company. Every other warehouse in St. Louis on both sides of the river is well filled, and it is said a blockade would soon result were it not for the fact that the railroads have commenced to supply cars more freely.

A contract was recently let for the construction of a grain elevator at Port Arthur, Texas, to be finished and ready for operation by February. The Pittsburg & Gulf has been a heavy carrier of grain from Kansas City this season, but has not shipped any considerable quantities to Port Arthur. The first steamer of the Port Arthur & Trans-Atlantic line will leave the Gulf Road terminus next month, and regular service to Liverpool will be thereafter maintained.

At a meeting on January 6 of the stockholders of the Grand Trunk Elevator Company, which owns and operates the C. & G. T. Elevator at Port Huron, Mich., it was voted unanimously to enlarge the elevator with an addition to cost about \$60,000, which will increase its capacity from 400,000 to 1,000,000 bushels of grain. Work will begin immediately, and will be pushed to completion by next May. The en-

larged elevator will be fitted up with all the latest devices for the rapid and economical handling and storage of grain, and will be one of the best of its size in the country.

The agreement referred to in our last number as having been arrived at between the citizens of Collingwood, Ont., and the Grand Trunk Ry. for the building of a large elevator at that point, has been confirmed by the Town Council granting a bonus of \$25,000. The Grand Trunk will at once commence the erection of a 700,000-bushel elevator.

The firm of J. & P. Schnell of Schnellville, Du Bois Co., Ind., failed last month. They also operated grain buying stations at Dale, Ferdinand, Huntingburg, St. Anthony, Mentor, Birdseye, Eckerty and Taswell. They also operated two flouring mills, and had other business interests. The firm was composed of Joseph and Peter Schnell. Peter was the manager, and it is said the failure was due largely to his paying ruinously high prices for grain. He left home on the pretense of making collections, and a few days later was heard from in Texas, on his way to Mexico. It was then that the true condition of the business became known, and his brother was forced to make an assignment. The liabilities are estimated at \$150,000, with assets of probably not more than half that amount.

PERSONAL

F. W. Van Wie and family have removed from Narka to Leonardville, Kans., where he is operating an elevator.

G. W. White has succeeded A. S. Ruff in the operation of the elevator at Linden, Ind., the latter having gone to Colorado.

F. W. Sheldon, a grain and produce dealer of Meudon, Mich., has disposed of his property in that place and removed to Kalamazoo.

John F. Geddes Jr. has removed from Claytonville to Gilman, Ill., where he is engaged in the grain business with Kaufman Bros.

Charles Lathrop has removed with his family from Atchison to Emporia, Kans., where he is now engaged in the grain commission business.

J. H. Buckley, who until recently was employed as grain buyer for the Interstate Grain Co. at Devon, Iowa, has been transferred to Kandiyohi, Minn.

E. C. Sale, who has recently been engaged in the grain business at Champaign, Ill., has decided to make that city his home, and has removed his family from Normal, Ill.

Geo. P. Wright, who was appointed grain inspector for the state of Washington to fill an unexpired term, has been reappointed to the same position for the term expiring in 1899.

Fred Morrill, who has represented Kennett, Harris & Co. on the floor of the Chicago Board of Trade, has resigned his position with that house and entered the employ of Raymond, Pynchon & Co.

W. R. Noyes, who is well known to the farmers of Wood County, Ohio, is superintendent of Hickox & Co.'s new elevator at Bowling Green, which was opened December 15. He is assisted by Alonzo Ordway.

A press dispatch of December 21 stated that Robt. Gentle, representing the Chicago grain firm of Snydacker, Fyffe & Co. in Montreal, Que., had mysteriously disappeared, and that an investigation of his accounts was being made.

J. W. Ellis Jr. has taken a position with the E. A. Grubbs Grain Co., Cincinnati, Ohio. He has also made application for membership in the Chamber of Commerce. Mr. Ellis is the son of J. W. Ellis, of the grain firm of Ellis & Fleming.

C. J. Watson of Dundee, N. Y., has rented his interest in the Dundee Roller Mills to his partner, D. R. Perry, and will hereafter devote his whole time to the wholesale grain and produce business, in which his partner is J. J. O'Brien.

J. B. M. Kehlor has resigned the presidency of the Consolidated Elevator Company of St. Louis, Mo., and Vice-President Henry S. Potter has been elected to succeed him. Several changes have also been made in the Board of Directors. Mr. Kehlor resigned because of ill health.

John F. Howard, with the Calumet Grain Elevator Co. of Chicago, Ill., finds the Northern winters too rigorous for his health, and has gone South to spend the winter months at San Antonio, Texas. He will return with the robins in the spring, and extend the "glad hand" to his many friends in the trade.

According to the annual report of Chief Grain Inspector E. J. Noble, the department inspected in 310,959 cars of grain during the twelve months ending with November, which is an increase of 4,514 cars over 1896.

Fires - Casualties

M. Kent's elevator at Kalamazoo, Mich., was badly damaged by fire on December 15.

Mrs. S. A. Howard at Moody, Texas, recently suffered a loss by fire on a stock of grain.

Jordan Brothers' elevator at Heyworth, Ill., was slightly damaged by fire on the evening of January 5.

A fire at Lincoln City, Del., December 25, destroyed William Morrison's granary and 1,200 bushels of corn.

L. Cannon's elevator at Jamaica, Ill., was burned December 8, with some grain. The loss is partly covered by insurance.

The grain and feed warehouse of Thos. R. Hull at Milton, Pa., was burned December 17. Loss reported at \$3,000; insurance \$2,600.

The D. H. Stuhr Grain Co. of Davenport, Iowa, suffered a small loss by water in connection with a fire which occurred on January 10.

J. E. Brown's elevator at Tiro, Ohio, was burned December 16, with 2,000 bushels of wheat. Loss \$3,000; partly covered by insurance.

A warehouse at Randsburg, Cal., occupied by V. L. Mitchell & Co. for storing gasoline, grain, etc., was destroyed by fire December 24.

Pratt & Carlin's elevator at Monett, Mo., was burned on December 28, with about 1,500 bushels of wheat and corn. Insurance small.

The cereal plant of the Hower Mfg. Co. at Akron, Ohio, was damaged by fire on December 18 to the extent of \$50,000, partly covered by insurance.

The engine room and machinery of Yost & Co.'s elevator at Fowler, Ind., was destroyed by fire January 7. Loss about \$1,500, covered by insurance.

Jas. Emery, of the firm of Weston & Emery, grocery and grain dealers of Madison, Me., committed suicide December 19 by shooting and hanging.

F. S. Hill's stock of grain and feed at Bristol, Vt., was damaged to the extent of \$500 on December 30 by water used to extinguish a fire in an adjoining building.

R. A. Key's elevator at Schell City, Mo., was burned December 24. Insurance \$3,200. The fire is said to have resulted from the explosion of a gasoline engine.

The brick warehouse at Hagerstown, Ind., owned by Cheeseman & Co., burned December 24, consuming 1,200 bushels of wheat. Cheeseman & Co. were damaged \$1,000, with \$500 insurance.

L. J. Baxter's seed store at Olean, N. Y., was damaged to the extent of several thousand dollars on December 31 by a fire which was plainly of incendiary origin. The loss is covered by insurance.

G. M. Smith's elevator at Concordia, Kans., was entirely destroyed by fire December 15, supposed to have originated from the friction of some journal in the loft. Loss about \$4,500; insurance \$1,100.

The four-story roasting and storage warehouse of the Atlantic Peanut Co., on Campbell's Wharf at Norfolk, Va., was entirely gutted by fire on December 30. The loss is reported as \$50,000, covered by insurance.

Joe Stont suffered a severe fall recently at his elevator at Garfield, Ill. A ladder upon which he stood gave way and he grasped a running cable, which lifted him higher, and then dropped him to the ground.

Mr. Bowers' elevator at Hedges, Ohio, operated by the Churchill Co., was burned December 29, together with about \$800 worth of grain and clover seed. Insurance \$400 on stock, but none on building or machinery.

The Osborn-McMillin Elevator at Clement, N. Dak., was destroyed on December 21 by a fire supposed to have originated from the stove pipe from the office. About 7 carloads of wheat and 4 of flax were in the elevator.

Fire destroyed a portion of A. J. Rumsey's grain warehouse at Batavia, N. Y., on December 28. A quantity of beans, barley, and 1,000 bushels of oats belonging to G. W. Hickox were damaged. The loss is covered by insurance.

P. E. Barrett's elevator at Hutchinson, Minn., burned to the ground on December 12. The capacity of the elevator was 20,000 bushels. The fire is supposed to have originated from a hot box in the machinery. Insurance \$2,500.

On the night of December 24 a fire which originated in and destroyed the 2,000-barrel flouring mill of the Isaac Harter Milling Co. at Fostoria, Ohio, spread to Elevator A, belonging to this company, and it was also destroyed. Its capacity was 130,000

bushels. Elevator B, with a capacity of 450,000 bushels, was saved. The total loss was \$150,000, fully covered by insurance.

The Pacific Coast Elevator Company's grain warehouse at Walter's Siding, two miles from Garfield, Wash., collapsed recently under the weight of 60,000 bushels of grain, a large portion of which poured onto the muddy and snowy ground.

The storehouse of Ansel F. Gurney, wholesale grain dealer, at Wareham, Mass., was totally destroyed by fire December 20, together with 100 tons of hay and several thousand bushels of grain. The loss is about \$10,000, fully covered by insurance.

The large elevator and annex belonging to the Northwestern Elevator Co. was burned December 12 at Bathgate, N. Dak. It contained 8,000 to 12,000 bushels of wheat, a considerable amount of which has been shipped to Minneapolis for feed. It was only by hard work that the Minneapolis & Northern Elevator was saved from destruction also. The elevator was under the management of Charles Bowers. It will probably be rebuilt in the spring.

On December 19 a fire was discovered in the cupola of the Interstate Elevator at Minneapolis, Minn. The fire originated from sparks caused by friction at the top of a belt shaft. The firemen from a near-by engine house put it out with chemicals, but after a short time the employees found the fire burning briskly at the bottom of the belt shaft, five stories below. Again the firemen were called, and, in order to reach the fire, had to climb down the narrow shaft, story after story. That they succeeded in putting out the blaze and returned in safety is a wonder.

Early on the morning of January 4, fire was discovered in warehouse No. 5 of the Farmers' Union and Milling Co. at Stockton, Cal. It spread rapidly to warehouse No. 6, and the attention of the firemen was directed to saving the adjoining warehouses. The lowest estimate of the amount of wheat destroyed is 10,000 tons, and the loss is placed at more than \$500,000. The largest portion of the grain was held in storage for farmers. Considerable insurance was carried by both the Union and the farmers. The fire is said to have started in the grading and cleaning machinery.

The Exchanges

Memberships on the Chicago Board of Trade are quoted at \$750.

The Chicago Board of Trade has reduced its annual dues from \$70 to \$60.

The annual sale of sample tables on the Chicago Board of Trade netted \$6,534.

George T. Kenly, who has been treasurer of the Baltimore Corn and Flour Exchange since 1881, has resigned the office.

C. B. Murray, superintendent of the Cincinnati Chamber of Commerce, has announced that on and after January 15 the standard of weight of new corn would be 68 pounds to the bushel instead of 70 pounds. No distinction will be recognized by the Grain Inspection Committee between the old and the new corn after that date.

The Kansas City Board of Trade has voted to re-establish future trading. The re-establishment is due to the opening of the Pittsburg and Gulf to Port Arthur, and the rapidly growing movement of grain to gulf points through Kansas. The contract grades of wheat are No. 2 hard winter, and No. 2 red winter of not less than 59 pounds weight.

The old year passed out merrily at the Merchants' Exchange at St. Louis, Mo. The trials and strifes of 1897 were forgotten, and for two hours the large hall was a theater at which was presented a superior and varied entertainment. Nearly all of the members, with their families and friends, were present, and the old year ended in good fellowship and good cheer.

The grain receivers of the Chicago Board of Trade are taking steps to secure a restoration of commission rates on car lot receipts of wheat. One large dealer, in announcing his intention of restoring the rate of one cent a bushel, reproduced a letter from a shipping house in the Northwest recognizing the justice of the rate, as each car of wheat carried with it a sight draft of from \$500 to \$800.

The Milwaukee Chamber of Commerce celebrated the advent of the new year by a minstrel show given by some of the excellent talent which is found among the members. About 2,000 were present to hear the program. The former heroes of the wheat pit seemed perfectly at home with the bones and tambourines, and the ancient and modern jokes which they cracked were received with the greatest applause. The musical part of the program was especially good. The principal performers were

Messrs. Lowry, Larkin, Ellsworth, Ed. Furlong, Bell, Rice, F. Furlong, Blanchard, and Bnrr Chandler. John H. Crittenden acted as interlocutor.

At a recent special meeting of the Board of Directors of the Chamber of Commerce of Baltimore, Md., President Ramsey appointed a committee composed of E. Clay Timanus, J. J. Corner and W. G. Bishop to confer with the railroads and adjust the rates of tariff for the nptown elevators on grain. The new tariff proposed by the railroads to go into effect on the first of the year is opposed by the feed men.

The Toronto Board of Trade has decided to abandon its assessment insurance scheme, and to leave the subject of insurance to companies which are organized for insurance purposes. The plan of the Board was known as the Gratuity Fund, and was based on the assessment system. It had grown to be, however, largely of a gratuitous character. The funds of the defunct association were distributed as fairly as possible.

The Chicago Board of Trade elected officers for 1898 as follows: President Zina R. Carter; second vice-president, Henry O. Parker. The directors are: John A. Bunnell, Frank Harlow, Frederick W. Smith, Joseph G. Snydacker, Frank E. Winans. The Committee on Appeals is composed of James M. Sherman, William M. Gregg, Samuel A. McClean Jr., George S. Blakeslee, Charles W. Requa. The Committee on Arbitration is Alexander Rodgers, J. H. Rawleigh, John E. Earle, C. H. Canby and William J. Taylor.

The Board of Trade of Kansas City, Mo., held its annual election January 4. Officers for 1898 were chosen as follows: President, P. T. Hamm, second vice-president; W. T. Kemper. Directors: H. L. Harmon, H. Vanderslice, J. O. Bradenbaugh, George S. Carkener, Tom Brodnax and B. F. Hargis. Members of Arbitration Committee, H. C. Reed, D. L. Croysdale, Alfred Hertz, W. H. Slater and John Sellon. Under the rules of the Board B. C. Christopher, second vice-president last year, becomes first vice-president this year.

The members of the Philadelphia Bourse on December 31 celebrated the coming of the new year by a battle royal with the Grocers' Exchange. All business was suspended and the air was filled with rye, oats, corn and flour. After the conflict was ended, bushels upon bushels of grain covered the floor, and flour was almost knee deep around the pit. Toward the close of the battle flour and water were mixed and the crowded galleries were bombarded. This was the climax to the excitement. The New Year was thought to have been given a sufficient demonstration, and hostilities ceased.

The minority report of the National Board of Trade, as submitted by A. J. Vanlandingham of St. Louis, Geo. F. Stone of Chicago, R. C. Grier of Peoria, and W. P. Trickett of Kansas City, contains the following clause in regard to legalizing of pooling of earnings or tonnage between railroads. Resolved. That any law legalizing pooling of the tonnage or earnings between railroads is against public policy, destructive to legitimate and beneficial competition and cannot but result in unjust discrimination. Resolved, That the National Board of Trade disapproves, and is opposed to all propositions so to amend the Interstate Commerce Law as to permit pooling.

There was a "hot time" on the floor of the Boston Chamber of Commerce on the afternoon of December 31. Business was suspended at one o'clock, and the approaching New Year was given a rousing welcome. The farewell ceremony to 1897 consisted in a grand battle, in which samples of grain, wheat and flour flew with lightning like rapidity backward and forward among the members. Any college football team could have learned a yell that would make it famous, and a good stroke from one of those sample bags would put to shame one of Fitzsimmons' upstarts. There were no casualties, however, the fun being all good natured, and when the battle was ended the floor was strewn, not with the slain, but to a considerable depth with all varieties of grain, grain sample bags and various articles.

The annual election of the Merchants' Exchange of St. Louis, Mo., resulted as follows: Chris Sharp, president; Henry H. Wernse, first vice-president; Oscar L. Whitelaw, second vice-president. The directors are: Henry F. Langenberg, Eugene Field, Adrien De Young, F. W. Hofmann and Benj. F. Horn. The Committee of Appeals is composed of Samuel Gordon, Thos. E. Quinlivan, N. L. Mofitt, F. W. Brookman, John L. Messmore, A. H. Bauer, C. H. Sieving, Otto L. Teichmann, Charles S. Freeborn, C. A. Cunningham, Nicholas R. Wall and H. B. Eggers. The Committee on Arbitration is: John O. Ballard Jr., Samuel Plant, Charles H. Flanagan, H. B. Louderman Jr., George D. Markham, R. J. Bergmann, C. A. Eberle, George Urquhart, Thomas B. Teasdale, and Frank D. Woodlock.

A naturalist asserts that "bears are not at all dangerous." Joseph Leiter reserves his opinion, however, until a little later in the game.

Items from Abroad

The official estimate of the wheat yield of New South Wales is 9,745,000 bushels. This will leave a small surplus available for export.

Cables from Rosario give the exportable surplus of Argentina as 46,000,000 bushels, while the Corn Trade News of Liverpool makes it only 25,000,000 bushels.

Germany has taken 12,000,000 bushels of corn in the past eight months, or more than 100 per cent. increase over the same time last year; the United Kingdom took 24,000,000 bushels, and France 2,000,000 bushels.

During the month of October the imports of wheat into Italy amounted to 160,000 quarters (of 480 pounds), and since August 1, 515,000 quarters, compared with 478,000 quarters in the corresponding three months last season.

The final official returns for Australia, including Tasmania and New Zealand, give the production of wheat for the crop year of 1896-97 as 26,791,994 bushels; corn, 9,889,691 bushels; oats, 20,099,488 bushels; hay, 1,434,718 tons.

During the first ten months of 1897 the Argentine Republic exported 167,280 tons of linseed, compared with 220,657 for the corresponding period of 1896. The hay exports for the same period were 637,402 tons, compared with 669,456 tons for 1896.

The grain imports of Switzerland for the third quarter of 1897, compared with the same period in 1896, were as follows: Wheat, 445,500 quarters (of 480 pounds); in 1896, 478,500. Oats, 143,000 quarters; in 1896, 129,000. Corn, 73,200 quarters; in 1896, 59,500. Barley, 8,300 quarters; in 1896, 6,100.

A press dispatch from St. Petersburg, Russia, says that in order to promote exports, the railroad committee has ordered a reduction of 20 per cent. in the freight rates on flour going to Russian seaports, and a reduction of 16 per cent. on grain intended to be ground at seaports prior to shipment.

According to estimates by the Japanese Department of Agriculture and Commerce, the rice crop of Japan will this year show a decrease of about 9 3-5 per cent., as compared with what is regarded as a normal yield, and a decrease of 7 7-9 per cent., as compared with last year, when the yield was short.

The Russian and Black Sea shipments from August 1 to December 24, with comparisons for the same period of 1896, as compiled by the Corn Trade News of London, were as follows: Wheat, 8,425,000 quarters (of 480 pounds); in 1896, 12,179,000 quarters. Corn, 1,178,000 quarters; in 1896, 348,000 quarters. Barley, 5,942,000 quarters (of 400 pounds); in 1896, 5,525,000 quarters.

During 1897 the Argentine Republic shipped to the United Kingdom 214,000 quarters (of 480 pounds) of wheat, compared with 2,291,000 quarters for 1896, and 4,620,000 quarters in 1895. The total shipments of corn since the beginning of the Argentine corn year amount to 579,000 quarters, compared with 5,308,000 quarters for the corresponding period of the previous year.

Numerous authorities in France believe that farmers, who, owing to want of money and the fear of a reduction in the import duty, have sold unusually freely since harvest, are now near to the end of their supplies. This apprehension is, no doubt, the cause of the renewed demand for cargoes, as some responsible people in France express the belief that shortly almost the whole demand will have to be met by importations.

From Aug. 1 to Dec. 1, 1897, the grain imports of Belgium, compared with the imports for the corresponding period of the previous year, were as follows: Wheat, 1,824,700 quarters (of 480 pounds); in 1896, 2,022,500 quarters. Rye, 196,650 quarters; in 1896, 85,500 quarters. Barley, 744,750 quarters; in 1896, 634,700 quarters. Oats, 94,200 quarters; in 1896, 156,900 quarters. Corn, 566,750 quarters; in 1896, 616,700 quarters. The exports for the same periods of 1897 and 1896 were as follows: Wheat, 477,550 quarters; in 1896, 425,500 quarters. Rye, 62,100 quarters; in 1896, 48,500 quarters. Barley, 134,900 quarters; in 1896, 92,100 quarters. Oats, 2,945 quarters; in 1896, 4,500 quarters. Corn, 238,750 quarters; in 1896, 196,200 quarters.

The grain imports of France from Aug. 1 to Dec. 1, 1897, with comparisons for the corresponding period of 1896, were as follows: Wheat, 2,653,700 quarters (of 480 pounds); previous season, 1,488,000 quarters. Rye, 199,750 quarters; previous season, 2,100 quarters. Barley, 506,050 quarters; previous season, 335,000 quarters. Oats, 636,000 quarters; previous season, 598,000 quarters. Corn, 659,950 quarters; previous season, 514,500 quarters. The exports for the same period, compared with 1896, were as follows: Wheat, 230,600 quarters; previous season, 213,500 quarters. Rye, 7,700 quarters; previous season, 3,360 quarters. Barley, 105,050 quarters; previous season, 119,600 quarters. Oats, 39,100

quarters; previous season, 77,500 quarters. Corn, 70,600 quarters; previous season, 31,000 quarters.

Harvesting is now in full swing in the province of Santa Fe in the north and center. Both wheat and linseed are turning out well, but in the south of the province linseed is bad. Entre Rios promises well. Early in the week rain put a stop to harvesting operations, but fine weather has since prevailed. The condition of the crops in the province of Buenos Ayres has greatly improved in view of the plentiful rains that have fallen in all parts.—Review of the River Plate, December 4.

COMMISSION

The grain and cotton brokerage firm of Curtis & Lemieux of New York City has been dissolved.

D. A. Biard, A. R. Caldwell and Robt. Biard have opened a grain brokerage office at Dodd City, Texas, where they will doubtless fleece the uninitiated for a brief season.

The firm of Siegfr. Gruner & Co. has been organized in New York City, to carry on a general commission business in grain, etc. The capital of the partnership is \$200,000.

The L. W. Foster Co. has been incorporated at Cincinnati, Ohio, to conduct a stock, bond, grain, provision and cotton business. It has private wires to New York and Chicago.

The Gardiner Commission Co., Cleveland, Ohio, has been incorporated with a capital stock of \$10,000 by F. O. Speurer, J. M. Foster, F. W. Gardiner, Jay L. Athey, and Martin L. Sanderson.

Evarts & Co., who have been in business in Detroit, Mich., for 14 years as commission merchants and grain brokers, will retire, and devote their energies in the future to their real estate interests.

On January 1 W. M. Brigham retired from the grain commission firm of W. M. Brigham & Co., at Milwaukee, Wis. The firm is now known as E. H. Ross & Co. Mr. Ross was with the old firm for a long time.

M. E. McHenry has opened a stock brokerage and grain commission office in Janesville, Wis. The Gazette of that place announces his arrival with evident satisfaction; as will others also who have money to part with via the bucket-shop route.

Will Hibbard, who has been operating a bucket shop at Richmond, Ind., under the name of the Richmond Grain Exchange, disappeared recently. The following day a letter was received from him saying he was on his way to the Klondike.

On January 1 Sam Finney & Co., grain commission merchants of Detroit, Mich., retired from business, and P. P. McLaughlin, who has been with that firm, and his brother, J. T. McLaughlin, succeeded the old firm under the name of McLaughlin & Bro.

F. D. Paddock and James Hodge have sold their two-thirds interest in the firm of Paddock, Hodge & Co., Toledo, Ohio, to Justice H. Bowman, the third member of the firm. In addition to extensive property interests, the transfer includes the Produce Exchange business and good will of the firm.

The partnership existing between S. W. Edwards & Son and Carl H. Thayer, under the firm name of Edwards & Thayer at Chicago, Ill., has been dissolved. S. W. Edwards & Son will remove their hay and shipping business to their warehouse at 110-120 N. Elizabeth St., where their general offices are located.

On January 3 the name of the Pope & Lewis Co., doing a grain commission business at Chicago, Ill., was changed to the Pope & Eckhardt Co. There was no change whatever except in name. Mr. Lewis has not been interested in the company for about a year. Mr. Wm. N. Eckhardt, the secretary, has been associated with the business nearly twenty-four years.

After two months of life in its luxuriously furnished offices in the Board of Trade Building at Duluth, Minn., the grain commission firm of E. J. Hart & Co. suddenly ceased to be, and its affairs now quietly repose in the hands of an assignee. It is said that, after making the assignment, the members of the firm immediately left the city, but it is thought that only a few creditors are left to mourn their departure.

The grain commission firm of Gillett & Hall, Detroit, Mich., the oldest in its line in the state, was succeeded on January 1 by the new firm of Carson, Craig & Co. There was practically no change, excepting in name, as the members of the new house, with one exception, were stockholders in the old firm. Theo. P. Hall was a member of the firm of P. Voorhees & Co. in 1859, and R. W. Gillett was with Bissell & Gillett in 1862. In 1868 these two grain dealers got together and established the firm

of Gillett & Hall. William Carson entered the employ of Gillett & Hall in 1867, and a few years afterward was made a stockholder. Thos. G. Craig began with them in 1872, and after a few years of service was admitted to membership. For the past fifteen years or thereabouts Theo. P. Hall has taken no active part in the business, and Mr. Gillett has taken little interest for several years. Thus the burden of management has long been on the shoulders of the younger men, who now assume full control. The new firm is made up of Thos. G. Craig, William Carson and John Wynne Jr. The last mentioned has been with Gillett & Hall since 1870.

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

Weigh Books.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf, well printed upon good paper. The books are well bound. Copies will be mailed to any address for

..... \$1.00

Clark's Vest-Pocket Grain Tables.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 lbs. Size 2 1/2 by 8 1/2 in., 16 pages

..... 50

Clark's Official Grain Dealers' and Shippers' Gazetteer.—This invaluable book contains official, corrected and revised lists of elevators, flour mills, grain dealers and shippers, track buyers and sellers, commission houses, etc., on the leading railway systems of the United States, it being issued under the indorsement and co-operation of their Freight Departments. Bound in cloth, 9x12 inches, 280 pages. Price

..... \$2.00

Pounds to Bushels.—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves, and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "Oats," \$1.00; "Barley," \$1.00; "Corn and Rye," \$1.00. The set

..... \$2.50

Jennings' Telegraph Cipher and Directory to New England Trade.—A new guide to carload buying of grain throughout New England. A list of those engaged in the grain, feed and flour trade. Western grain shippers and millers wishing to do business in this territory will find this directory invaluable. The telegraph cipher has met with favor and is highly recommended by users. In fact the code part of the book is considered by many shippers superior to any other in use. It is modern and practical, a great money saver, and will prevent mistakes. Nicely bound in leather

..... \$3.00

Adams' Cable Codex.—This code is compiled especially for sending cablegrams, and is used extensively in this country and abroad. The seventh edition, which is about to go to press, will contain 160 pages of cipher words, conveniently arranged. The code contains sentences covering and referring to buying and selling, condition of market, sterling money, United States money, business, financial matters, letters of credit, drafts, standing of firms and many sentences used by travelers. The cost of the code is a mere nothing compared with the saving which can be made on one message. Price, postpaid

..... \$5.50

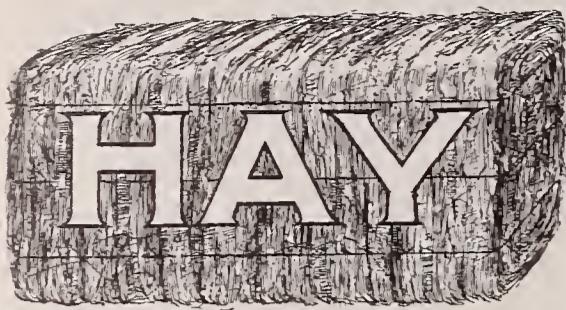
Davis' Grain Tables.—These tables give the value of any number of bushels of produce weighing 60 pounds to the bushel from 25 cents to \$1.25 per bushel, and the value of any produce weighing 32, 48 and 56 pounds to the bushel at 15 cents to \$1.50. The book also contains Davis' Dockage Table, which gives the amount to dock any load of wheat up to 600 bushels at 1 1/2 to 5 pounds dockage. The book contains 219 pages of tables, printed on good paper, with large type, and well bound in cloth. The book is a new publication, and the arrangement of the tables is much more convenient than in some of the old publications. Price

..... \$1.25

Clark's Grain Tables.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels, so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains 16 tables, and is neatly bound in cloth. Price

..... \$1.50

For any of the above, address
MITCHELL BROS. CO., 184 and 186 Dearborn street, Chicago, Ill.



Pfaff Bros. have succeeded Frederick P. Grub, wholesale hay dealer of Newark, N. J.

The little town of Alma, Mich., has made quite a reputation for itself as a hay market.

L. W. Deyoe, a very extensive hay and feed dealer of W. Scranton, Pa., died December 16.

We have received from Willis Bullock, editor of the Hay Trade Journal of Canajoharie, N. Y., a very neat calendar for 1898.

The receipts of hay at Chicago for 1897 were 245,149 tons, as compared with 327,263 tons for 1896. The shipments for 1897 were 19,609 tons, as compared with 104,637 tons for 1896.

The firm of Carman & Foulds, extensive hay dealers of Kalamazoo, Mich., is contemplating building a new grain elevator at that place. The elevator will have a capacity of 8,000 bushels.

A large freight warehouse at Charlestown, Mass., which is used for the storage of hay by commission merchants of Boston, has been burned. About 28 carloads of hay were burned, the loss amounting to about \$4,000.

The International Export Grain & Oil Co. has purchased a tract of land at Kansas City, Kans., and the plans are being made for a large hay shed. The hay shed will be a modern structure, and will have facilities for carrying 100 cars of hay.

The receipts of hay at Cincinnati, Ohio, for 1897, as reported by C. B. Murray, superintendent of the Chamber of Commerce, were 101,104 tons, as compared with 66,989 tons in 1896. The shipments for 1897 were 58,848 tons, and for 1896 19,728 tons.

An ordinance was recently placed before the council committee on public property and improvements of Indianapolis, Ind., which requires all of the hay and other cereals, wheat and oats excepted, that are sold in the city, to be first weighed on the city scales.

The hay market at Peoria, Ill., was glutted with hay during the middle of December. The price dropped very low, and as hay continued to arrive the large dealers were forced to write to their customers in the West to stop shipping to Peoria until the market became easier.

B. L. Wooster, who has been in the hay department of the John Mullally Commission Co. of St. Louis, Mo., for the past 8 years, has associated himself with the Dayton Grain Co. of St. Louis, holding the position of secretary. The hay department of the new firm will be made a special feature.

It has been observed that an unusually large number of cases of spontaneous combustion has occurred recently in hay. The instances have been, indeed, too numerous where heat generated in masses of new hay burst out into flame. There is no need of losses occurring from this source if only a small amount of precaution is used.

The Baltimore & Ohio Railroad will build a hay and grain clearance house at Greenwood, Pa., to facilitate the rapid handling and transfer of these commodities. The new building will accommodate 100 cars of hay and grain, and will be equipped with scales and all the necessary adjuncts for the accommodation of the grain and feed dealers.

The People's Forwarding Co. of Salt Lake City, Utah, suffered a loss to its hay warehouse from fire at 9 p. m., December 29. The fire spread to the company's main buildings, which were damaged to the amount of \$1,500. The loss was covered by insurance. The damage to the sheds and contents amounted to \$300, partly covered by insurance. The fire is supposed to have started by someone sleeping in the shed.

The rules of the Grain, Hay and Feed Receivers' Association of Cincinnati, Ohio, made in order to protect its members from bad creditors, recently caused trouble among some of its members. Newt Christy of the firm of Jos. Good & Son sold a carload of corn to a prominent dealer, and gave him the order for it. His attention was called a little later to the fact that the retailer's name was on the delinquent list. As anyone selling to a firm whose name was on the delinquent list was liable to a fine, Mr. Christy canceled the sale and withdrew his order. A little later the retailer settled for the stuff on which he was delinquent, and when Christy again offered to sell him the car of corn he refused

it, having purchased elsewhere. Mr. Christy subsequently sold the car at a loss.

Clover hay is being placed on the market in the East in the form of clover meal. It is scalded and used for calves, and is also fed to pigs, it being found excellent as an addition to skim milk. The clover meal, if scalded, becomes soft and swells and has been found very wholesome and nutritious as well as highly relished by young stock.

There is a great scarcity of No. 1 hay in the market at Montreal, Que., while the poorer qualities of hay are as plentiful as the finest grades are scarce. In the province of Ontario the quality of hay is somewhat better than in Quebec, although even there it is difficult to find very much No. 1 timothy. The clover and clover mixed, however, are, as a rule, pretty good.

The large hay and grain warehouse of Ansel F. Gurney at Wareham, Mass., was burned on the night of December 20. Over 100 tons of hay and several thousand bushels of grain were burned. It was supposed that the fire started from a spark from a pipe or a cigar or from a match used in the lighting of these. The warehouse and stock were both insured. Loss \$10,000.

The Kansas City Hay Dealers' Association held its annual meeting and banquet December 29. Over 100 commission merchants and others connected with the hay business were present. The business session lasted several hours, and many matters of interest to the trade were discussed. Committees were appointed to secure better advantages in freight rates and railroad accommodations. The hay trade carried on through the Kansas City commission merchants during the year 1897 amounted to about 13,000 cars, an increase of 3,000 cars over the trade of 1896. The association adds largely to the importance of Kansas City as a market. After the business session the members sat down to the annual banquet.

The Grain, Hay and Feed Receivers' Association of Cincinnati, Ohio, elected the following directors: J. Parker Gale, W. W. Granger, E. O. Grubbs and Chas. S. Maguire. James A. Loudon is also a director, his term of office not having expired. The treasurer's report showed the funds in the treasury deposited by members as a forfeiture under certain conditions intact, with a neat surplus fund accumulated from three years' interest. This fund will be used in giving a banquet to members and invited friends. The retiring Board of Directors, F. F. Collins, John Allen, Chas. L. Garner, E. J. Levi and J. A. Loudon, was appointed a committee to arrange for a banquet, which will be given on the evening of January 22.

A petition signed by a large number of members of the Cincinnati Chamber of Commerce has been presented to the Board of Directors, asking that in the future the price for inspection of all cars of 40,000 pounds or more weight be 45 cents a car, the price for cars under that weight to remain at 30 cents. In the past the fee for Chamber of Commerce inspection of hay and grain has been 30 cents a car. It is held that the inspection fees are at present not sufficiently remunerative, and the grain trade will pay the extra amount very willingly after it receives the Chamber's indorsement. The board decided, in order to avoid complications in keeping track of the weight of the cars, to make a rate of 40 cents on all cars.

A great cry goes up from receivers in the large eastern markets every once in a while over the large amount of inferior hay which is shipped. Shippers get the idea that in a large market such as Brooklyn or New York any "old hay" will be taken up at good quality prices. The fact is that at no place is discrimination made more closely between inferior and superior hay. When the fact is considered that it costs no more to ship good hay than it does to ship poor hay, and that the cost and labor of handling, from the farm to the station and destination, is just as great on either kind, it is at once apparent that the best place for the low grade hay is at home, where it can be used to greater advantage, and where it will prove more profitable to the owner than in the large markets.

A movement has been started among the hay receivers and shippers of Cincinnati, Ohio, that is expected will result in securing central hay sheds for the inspection and accommodation of hay entering that market. The plan proposes the erection of hay sheds in the west end, where the greatest number of railroads can enter. The shed is designed to be used by every receiver of hay, and it shall be made obligatory on them to turn every car over to the inspector at the sheds. As soon as a car is received it is to be dumped at once, and the car returned to the railroad. The present inspection of hay consists in the examination of samples taken from the bales near the door. In the rear there may be hay that is far below the grade. It is thought that the railroads can be induced to unite and erect such a shed. In order to make the plan a success hay dealers who now have their own sheds would be expected to join with the others. Another plan is proposed if the railroads do not agree to build

the shed. That is to have the hay dealers or grain men form a stock company with a capital of \$23,000 and build their own sheds.

REVIEW OF CHICAGO HAY MARKET.

The prices for hay ruling in the Chicago market during the last four weeks, according to the Daily Trade Bulletin, were as follows: During the week ending December 18, the receipts of hay were 6,062 tons, against 5,690 tons for the previous week. Shipments for the week were 416 tons, against 484 tons for the previous week. A very fair demand existed, especially for Timothy Hay, during the early part of the week. The offerings were only moderate and a steady feeling prevailed. Toward the close the arrivals became larger, and the demand light. The market closed dull. Sales of Choice Timothy ranged at \$9.00@9.50; No. 1, \$8.00@8.50; No. 2, \$7.00@7.50; No. 3, \$6.50@7.00; Net Graded, \$7.00@8.00; Choice Prairie, \$7.25@8.25 for Iowa, and \$8.50 for fancy Kansas; No. 1, \$7.00@7.25; No. 2, \$5.00@6.00; No. 3, \$5.00. Rye Straw sold at \$3.00 for damaged and \$6.00@6.50 for good to choice, and cat straw at \$5.00.

During the week ending December 24, the receipts were 4,807 tons, against 6,062 tons the previous week. Shipments for the week were 294 tons, against 416 tons for the previous week. The market was quiet and rather dull throughout the week. Only a moderate local demand existed and while the arrivals showed a falling off, they were sufficient for the requirements. There was no inquiry for shipment. Sales of Choice Timothy ranged at \$8.75@9.25; No. 1, \$8.00@8.50; No. 2, \$7.00@7.50; No. 3, \$6.50; Not Graded, \$6.00@8.00; Choice Prairie, \$7.50@8.00; No. 1, \$6.00@7.25; No. 2, \$5.00@6.00; No. 3, \$5.00; No. 4, \$4.50. Rye straw sold at \$5.50@6.50 and oat straw at \$4.75.

During the week ending January 8, the receipts were 4,410 tons, against 4,038 tons the previous week. Shipments for the week were 207 tons, against 262 tons for the previous week. The arrivals were only fair and a good local demand existed, especially toward the close of the week. There was no improvement in the shipping trade. Prices ruled steady during the early part of the week, but toward the close a slight advance was established. Sales of Choice Timothy ranged at \$9.00@9.50; No. 1, \$7.75@8.50; No. 2, \$7.00@7.50; No. 3, \$6.50@7.25; Not Graded, \$6.00@8.00; Clover Hay, \$6.00; Choice Prairie, \$7.25@8.00; No. 1, \$6.50@7.50; No. 2, \$5.00@6.00; No. 3, \$4.00@5.00; No. 4, \$3.62@4.00. Not Graded, \$4.00. Rye straw sold at \$5.00@6.00, and oat straw at \$4.00.

OUR CALLERS

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

A. E. Clutter, Lima, Ohio.
J. M. Maguire, Wilson, Ill.
N. B. Hieatt, Willis, Kans.
H. N. Knight, Monticello, Ill.
E. H. Reynolds, Sterling, Ill.
Ernest Bentke, Earlville, Ill.
W. T. McCray, Kentland, Ind.
Theo. P. Baxter, Taylorville, Ill.
Nelson Brouillet, St. Anne, Ill.
A. B. Puterbaugh, Forreston, Ill.
M. McFarlin, Des Moines, Iowa.
D. A. Robinson, Minneapolis, Minn.
J. W. Youngerman, Campbell, Iowa.
J. S. Leas, of Barnard & Leas Mfg. Co., Moline, Ill.
Chas. Hammond, of the Huntley Mfg. Co., Silver Creek, N. Y.
Robt. A. McKean, representing the Riter-Conley Co., Pittsburg, Pa.
J. L. Wheeler, representative of the Invincible Grain Cleaner Co., Silver Creek, N. Y.

When carload rates and classification for bulky goods were established, large cars were 34 feet long, and of the usual height and width for that length. Minimum weights were then also fixed for cars that very much exceeded the capacity of such cars to carry. Shippers very naturally wanted cars that would carry the specified minimum weights, and so enable them to ship more goods at the same cost as would result if cars of larger capacity were obtainable. This advantage was pressed upon the different railroads located where bulky goods were produced, and desiring to secure such advantages to their local patrons, cars commenced growing in size until now they have reached 60 feet in length, and are proportionately larger in other dimensions. And still the demand is for larger cars. Many railroads have not kept pace with these demands, and now find themselves handicapped for the want of them, their business going to the roads that have been enterprising enough to build large cars and so secure the trade.—Farm Implement News. If the railroads would reduce the minimum weight of the carload of bulky freight necessary to get carload rates, less trouble would be experienced on account of small cars.

Court Decisions

Carrier—Freight Connecting Lines.

In the case of the Louisville & Nashville Railroad Company vs. Cooper, the Kentucky Court of Appeals held that the rule established for the transportation of freight is that a common carrier is only bound to safely carry or transport such freight to the terminus of its line unless by special contract it agrees to deliver the freight to its destination, a point beyond the line of the common carrier, in which case such carrier is liable for any damage done upon its connecting lines.

Inspection Not Always Compulsory in Washington.

In the Supreme Court last week a decision of the action brought by the State Grain Commission against Lilly, Bogardus & Co., Seattle, to collect fees for the inspection of a consignment of oats, was handed down adversely to the Commission. The decision establishes a construction of the law which makes it non effective as regards grain shipped for other than export or milling purposes, failing, however, to pass upon any general contention relative to the inspection question. In the case in question the defendant firm had shipped its own grain from its own country warehouse upon its own steamer to its Seattle warehouse, and the court upheld them in resisting compulsory inspection.

Warehouse—Revoking License.

The Supreme Court of Illinois held, in the recent case of Cantrell vs. Seavers et al., that the Railroad and Warehouse Commissioners had no jurisdiction to revoke the license of the defendant as owner of a warehouse of Class A (warehouses located in cities of not less than 100,000 inhabitants). The determination of the case involved the construction of two acts, one of which gave the Railroad and Warehouse Commissioners control over the matter of canceling licenses, while the other, a later act, gave the power to issue licenses to warehouses of Class A, and to revoke the same to the Circuit Court of the county where situated. The court said: "It is contended that between these two acts there is no repugnancy, but that it was intended that the court and commission should have concurrent jurisdiction as different courts may have. We do not think that conferring jurisdiction upon a court and a non-judicial body is at all similar to the concurrent jurisdiction of courts, or that such an intention is to be presumed unless it clearly appears. There are plain inconsistencies in the two acts, and in the proceedings authorized by them. In the first act it is provided that no person whose license shall be canceled or revoked by the commission shall be entitled to another license until after the expiration of six months, while the second provides that the court after revocation may refuse a new license for one year. This second act clearly fixes the time when a new license may be issued to warehousemen of Class A, and permits the court in its discretion to grant or refuse a new license for the period of one year. If it had been intended that the warehouse commission might revoke licenses to warehousemen of that class, such revocation would be followed by an absolute disability for six months, and the Legislature would have limited the discretion of the court to the remaining six months of the year. We think that the jurisdiction of the Circuit Court as to this particular class was intended to be exclusive and that the judgments of the Appellate and Circuit Courts are right."

What Constitutes Delivery of Carload Grain.

In the late case of the Anchor Mill Co. vs. Burlington, C. R. & N. R. Co., 71 N. W. Rep. 255, the main question to be determined was whether a certain carload of wheat had been delivered to the mill company before the bill of lading was transferred by the consignee to a local bank to secure it in the purchase of a draft. The consignee had contracted with the mill company to sell the latter 4,000 bushels of wheat and gave the agent of the railway company orders to deliver all grain billed to it there to the mill company without presentation of bill of lading. When the carload in controversy arrived, it was placed on the sidetrack for the mill company, and the latter notified thereof. The following day the bank bought the draft mentioned and received the bill of lading. The mill company had been advised that the car would be forwarded without draft on account of the consignee having already overdrawn its account. Under these circumstances, and after the mill company had unloaded a portion of the wheat, the railway company removed the car back to its yard. This suit resulted. As the railway company delivered the car in pursuance of the order to do so without bill of lading, the Supreme Court of Iowa said it need not consider whether it was bound to do so. Taking up the question of the sufficiency of the delivery to cut out

the bank, the court says that the railway company, in order to deliver this wheat in bulk, certainly could not be expected to unload it. All that could be required was that it place the car where it could be safely and conveniently unloaded by the party entitled to it, and notify him of its action. It did this, and when it did it its duties as a common carrier ended. The delivery was complete, and the railway company had lost control of the wheat before it received notice of the bank's claim; and, in consequence, when it resumed possession, did so without any right or authority. The bank obtained no better title to the wheat than the consignee had when it parted with the bill of lading. Prior to that time the title to the wheat had passed to the mill company. The bill of lading had served the purposes of its existence, and was no longer a thing of value. Such a rule, the court adds, only requires that the purchaser of a bill of lading know the title to the property of the person from whom he buys. And this is the general rule. On these grounds, the Supreme Court holds that the District Court erred in directing a verdict in favor of the bank, and reverses the judgment of the lower court.

Intent to Make Gambling Contract Must Be Mutual.

In the case of Chas. Counselman & Co., appellants vs. Emanuel Reichart of Cass County, Iowa, it was shown that the plaintiff firm is engaged in the commission business in Chicago, Ill. The defendant in 1894 was engaged in the grain business at Neola, Iowa, and shipped grain to the plaintiff in Chicago. This action was brought to recover a balance of \$505.43 on account. June 14, 1894, the defendant by telegram directed plaintiff to buy for him 5,000 bushels of September oats. On Aug. 31, 1894, the defendant directed plaintiff to sell the oats and buy for him 5,000 bushels of May oats. Plaintiff reported to defendant a loss on the September oats of \$6.25, and charged a commission of \$6.25, making an aggregate charge against defendant on the transaction of \$12.50. The purchase of May oats was reported as made, and after a neglect or refusal to put up margins by defendant the grain was closed out Jan. 25, 1895, with a loss, including commission, of \$300. The losses on the two oats transactions, including commission and a balance on account of grain shipped to Chicago, made up the aggregate of plaintiff's claim. As to the balance of \$192.93 on account of grain shipped there was no question, and defendant offered to confess judgment for the sum of \$220, being for that amount with interest. The contention was as to the claims based on the second transaction in the purchase of oats. The defendant denies the purchase, and avers that the transactions were illegal, as being gambling contracts in that they were mere speculations in margins with no sales of grain. The issues were tried by a jury that returned a verdict for \$217.06, being less than the offer of judgment. There was a judgment on the verdict and the plaintiff appealed.

The Supreme Court says: "Contracts for grain, where the intention is merely to speculate on the chances of a rise or fall in the market, and no delivery is intended, are gambling contracts and are void. It is not enough to render a contract void that the buyer intends it as a gambling contract, unless the seller participates in that intention; that is, if in the case at bar the defendant, in ordering the purchase of the oats, only intended a speculation upon the margins without the delivery of the grain, and the plaintiff purchased the grain for actual delivery, it would be a gambling contract. To make the contract void as between these parties the intention to make a gambling contract must have been mutual. Much importance is attached to the fact by appellant that the only communications by the parties were by letter and telegram, which are in evidence, and they make no disclosure of a purpose not to deliver the oats. The directions to buy were: 'Buy 5,000 September oats below 31, draw on me for margins.' 'Sell September and buy May.' It was upon these telegrams that the purchase and sales were to be made. They are evidence on their face that the parties understood what was not expressed. Neither telegram purports to express all that it is intended to be understood. In several particulars they are incomplete as to details essential to a complete contract. In view of the generally known fact that business on the Board of Trade is conducted on a plan of non-delivery of produce, but as a speculation in margins or differences, it may well be said that the fact of whether there was to be a delivery of grain in question was one of understanding between the parties independent of the orders for purchases."

W. H. Small, a grain dealer of Evansville, Ind., after a two weeks' visit to the Northwest, expresses himself to the effect that the farms of the Dakotas and Minnesota are "worn out" with continuous wheat crops, and that the country must now look to the well cared for farms of the central states, particularly Indiana, for the large portion of its wheat supply. "In these conditions," concludes Mr. Small, "I see a bright future for the Indiana farmer."

REPORT OF THE MILLERS' NATIONAL INSURANCE CO.

Secretary W. L. Barnum of the Millers' National Insurance Company, 205 La Salle Street, Chicago, in his annual report to members says:

In submitting my twenty-second annual report, I congratulate the members of this Company on its sound financial condition. Our losses in December were comparatively slight, thus enabling us to adjust and pay all claims before the close of the year and present a clean statement, to which your attention is particularly directed.

The Permanent Fund so wisely provided for in the formation of this Company has kept even pace with its liabilities assumed. We desire every policy-holder to know that, however extended our business may become and whatever may be the aggregate risk, the Permanent Fund will always be in due proportion, thus making the Millers' National financially one of the strongest insurance companies in the United States.

For twenty-two consecutive years the President, the Vice-President, the Secretary, the Assistant Secretary and the Cashier have labored continually and faithfully, side by side, in the interests of this Company, and the result as here presented tells its own story. Everyone who has contributed to the success of our organization may well feel proud of the results attained. With the same conservative management that has controlled the Company's affairs in the past, there is every reason to believe that its future will continue as prosperous and successful.

The entire assessments levied during the past year have amounted to only nine per cent. of the deposit notes in force, or forty-five per cent. of the annual rate usually charged by board companies equal to an annual cash dividend of fifty-five per cent. The average cost in the Millers' National for over twenty years has been about one-half our annual basis rate. In no one year has it cost more than 70 per cent. and in other years as low as 30 per cent. to 40 per cent., depending upon the losses sustained. As above stated, the average cost of our policy has been about one-half the board rate. In accordance with our usual custom the Insurance Department of this state has made its annual examination and verified in every particular the report of your secretary.

The twenty-second annual statement of the company shows:

	ASSETS.	Market Value.
United States bonds.....	\$50,000.00	\$56,000.00
Cook County, Illinois, bonds.....	60,000.00	61,500.00
City of Chicago bonds.....	10,000.00	10,250.00
Chicago Board of Trade bonds.....	10,000.00	10,000.00
Chicago City Railway bonds.....	25,000.00	25,625.00
Chicago Passenger Railway bonds.....	20,000.00	21,400.00
North Chicago City Railway bonds.....	10,000.00	10,400.00
St. Louis, Cass Ave. & Fair Grounds R. R. bonds.....	25,000.00	25,750.00
Santa Fe Elevator & Dock Company bonds.....	10,000.00	10,000.00
Chicago, Burlington & Quincy R. R. bonds.....	15,000.00	15,000.00
Chicago, Milwaukee & St. P. R. R. bonds.....	10,000.00	11,500.00
North Chicago Electric Railway bonds.....	10,000.00	10,800.00
Chicago Electric Transit Company bonds (North Division).....	10,000.00	10,800.00
Chicago Electric Transit Company bonds (West Division).....	10,000.00	10,500.00
Central Safety Deposit Company bonds.....	10,000.00	10,000.00
Bureau & Putnam County, Illinois, Drainage bonds.....	14,000.00	14,280.00
Sanitary District of Chicago bonds.....	20,000.00	21,600.90
Village of Harlem, Illinois, Improvement bonds.....	12,500.00	12,500.00
Ogle County, Illinois, bonds.....	25,000.00	25,000.00
Riceland County, Illinois, bonds.....	1,000.00	1,000.00
Ford County, Illinois, bonds.....	5,000.00	5,000.00
Marseilles, Illinois, bonds.....	6,000.00	6,000.00
Effingham, Illinois, bonds.....	3,000.00	3,000.00
Tracy, Minnesota, bonds.....	5,000.00	5,000.00
Wells County, Indiana, bonds.....	6,500.00	6,500.00
Whitely County, Indiana, bonds.....	4,000.00	4,000.00
Osgood, Indiana, bonds.....	5,500.00	5,500.00
Aberdeen, South Dakota, bonds.....	10,000.00	10,000.00
Town of Cicero, Illinois, bonds.....	8,000.00	8,000.00
Des Plaines, Illinois, bonds.....	8,000.00	8,000.00
Oak Park, Illinois, School bonds.....	5,000.00	5,000.00
Bureau County, Illinois, Drainage bonds.....	11,000.00	11,000.00
Evanston, Illinois, Township Improvement bonds.....	5,500.00	5,500.00
Whiteside County, Ill., Drainage bonds.....	10,000.00	10,000.00
Illinois Staats Zeitung Company of Chicago bonds.....	4,000.00	4,000.00
West Chicago Park bonds.....	7,900.00	7,900.00
Cicago National Bank stock.....	10,000.00	27,000.00
South Side Elevated Railway stock.....	11,100.00	6,882.00
	\$483,000.00	\$511,587.00
Loans on bonds and mortgages (first lien).....		47,205.00
Loans on bonds as collateral.....		20,000.00
Interest accrued on bonds and mortgages.....		9,372.80
Cash on hand and in bank.....		30,976.77
Premiums in course of collection.....		3,225.95
Total cash assets.....		\$622,367.52

	LIABILITIES.
Losses adjusted and due.....	None.
Losses in process of adjustment, including all reported or supposed losses.....	None.
Re-insurance reserve.....	\$76,984.15
Guarantee deposits.....	99,931.47
All other liabilities.....	483.89
Total liabilities.....	\$ 177,399.51
Net cash surplus.....	\$ 444,968.01
Deposit notes subject to assessment (net value).....	1,525,761.25
Surplus over all liabilities.....	\$2,040,729.26
Aggregate amount of admitted assets.....	\$2,218,128.77
Losses incurred during the year 1897.....	\$ 171,665.55
Losses paid since organization.....	\$2,548,723.48

It is reported that the Anti-Chinch Bug Association of Washington County, Illinois, in a recent meeting approved the planting of strips of corn to centralize the first brood of chinch bugs as they are leaving the wheat fields, and the use of the improved blow torch as a successful method of destroying the insects.

PRESS COMMENT

THE FREE SEED DISTRIBUTION.

A report of the Department of Agriculture recently declared that "a careful review of the department reports during a decade in which over a million dollars was expended for free seed distribution fails to reveal a single instance of benefit to agriculture attributable to this distribution." The whole system is a fraud on its face. It represents a form of bribery that is a reproach to the government. Congress will never have a better time to abolish it than at the present session, when public revenues demand retrenchment.—Times-Herald, Chicago.

MONEY IN ALFALFA.

Alfalfa seed is one of the agricultural products never shipped from Pueblo County. So certain has been the prospect of a good sale of the hay that alfalfa within 20 miles of Pueblo is never allowed to go to seed. The lower valley used to ship the seed, but now, owing to the boom in the cattle business, all the hay that can be grown is in demand. A farmer at Sterling, Colo., has just shipped 200 sacks of alfalfa seed to England. If the whole of this county could be made to grow alfalfa the product could probably be sold, either in hay or seed.—Chieftain, Pueblo, Colo.

UNREASONABLE RATES.

It needs to be established that the requirement in regard to reasonable rates, which is now interpreted as a prohibition against excessively high rates for the purpose of protecting the people, shall be extended to prevent the charging of excessively low rates for the purpose of the protection of the railroads. This does not mean that the government shall make rates, or that the Interstate Commerce Commission should be a rate-making body. It does mean, however, that the rule which requires all rates to be reasonable shall be given a wider and more accurate interpretation than is at present the case, and enable the Interstate Commerce Commission to declare as unreasonable all rates that are unjust to the people on the one hand, and unjust to the railroads on the other.—Railway Review.

WATCH OUT.

This is a good time to keep an eye on the news from Europe. Everything seems to indicate that there is trouble brewing there. When the tension becomes extreme our foreign neighbors will call upon us to furnish them not alone with grain and provisions for their armies and navies, but also with ammunition, clothing and other war necessities. What additional impetus this will give our commercial and industrial activity anyone can figure for himself. The news from China and Japan now being received daily reflects a state of affairs between Germany and Russia on the one side, and England and Japan on the other, that must soon come to a focus. Should it reach the state where an amicable adjustment is impossible, it will undoubtedly be first reflected in a sharp jump in the price of wheat here. Watch out!—Wall Street News.

CANNOT GUARANTEE PROFITS.

The personal columns of the newspapers throughout the country contain many advertisements of persons who claim to have inside information bearing on stocks and grain. These advertisements are intended to reach people of limited means with speculative proclivities. It can be laid down as a pretty sure thing that the firms and individuals who insert them have no better sources of information than the lambs whose money they seek. As a rule, they are themselves bucket shops, or patrons of such places. But no costly experience should be necessary to cause sensible persons to steer clear of all concerns which profess to guarantee unusual profits. No respectable broker does this, nor will he be found advertising his attractions in the personal columns of the newspapers.—News, Baltimore, Md.

CASH PRICES HAVE LED THE WAY.

Our people seem to have forgotten that in the end it is the legitimate position that establishes values. Like a wind that ruffles the surface of the sea so these dealers in futures stir up the surface of the grain trade. Beyond that they are of little importance. So far this season prices have led the way, and futures have been high in sympathy. During a few days in the fore part of December cash prices were abnormally high, caused by the fright of shorts in December. Excepting that, the demand for wheat for use has been the leading factor in prices throughout the season. As the quantity of wheat for sale has proved greater than was expected by traders, whose inspiration came from interested parties, it is, no doubt, true that the quantity of wheat for the world's use during the remainder of

the season is unusually small. On the other hand it is quite as well assured that when properly distributed the supply is enough for the season.—Minneapolis Market Record.

INFLUENCE OF LEITER'S WHEAT.

It is not natural for one man to own all the cash wheat in Chicago market. That feature may continue to be an inspiration to doubt and fear rather than confidence. What Leiter can do and what Leiter will do with his wheat will be constantly in mind in all the trading. But it is a powerful influence in maintaining prices, and for that let us give thanks.—Toledo Market Report.

CHICAGO BOARD OF TRADE AGAINST BUCKET SHOPS.

The members of the Board of Trade are to be congratulated on having selected as their president so good a business man and citizen as Zina R. Carter. But above all personal considerations the fact to be considered is that Mr. Carter represents that element among the traders which is uncompromisingly opposed to bucket shops, and to illicit trading in all its forms. He was elected very largely on this issue, his stand against bucket shop methods being positive and pronounced. It is evident that a majority of the members of the Board of Trade are disposed to take a strong stand in favor of strict rules and legitimate methods. Mr. Baker, the retiring president, was firmly committed to this view, and it is gratifying to see that the Board is determined to maintain the policy of former years.—Chicago Record.

John Hill Jr. continues to make it decidedly unpleasant for the bucketshop keepers, but the amounts squeezed from the suckers are so large that new sharpers are tempted to take the places of those closed up. The poor public is too gullible, too anxious to get rich quick.

In commenting on the increase in the grain export trade of the Gulf ports the Packer of Kansas City says: The first duty of the western merchant is to develop western trade. The duty of the western shipper is to develop western commerce. And it is the duty of all alike to develop a western market. If we can build up an export market nearer home the advantages are obvious. With our grain, live stock and meat products reaching ocean vessels through harbors on the Gulf of Mexico, it is manifestly advantageous for us to cultivate this less expensive method of reaching foreign markets in preference to the freight-eating, tribute-levying route to the Atlantic seaboard.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ATLAS ENGINE FOR SALE.

For sale, one 70-horse power Atlas Automatic Engine, in perfect order. Been run only three years. Address

SHANNON & MOTT CO., Des Moines, Iowa.

ILLINOIS GRAIN BUSINESS.

Grain business for sale Buy one, lease one elevator. Only dealer. Good coal business in connection, if desired. Price \$2,200. Address

LOCK BOX 486, Somonauk, Ill.

WEBSTER BELT CONVEYOR.

For sale, cheap, one Webster 24-inch Belt Conveyor, 120 feet, complete with automatic trip; adapted for handling grain and all other dry materials. For full particulars address

J. Box 11, care "American Elevator and Grain Trade," Chicago, Ill.

PENNSYLVANIA ELEVATOR.

For Sale—Elevator of 250,000 bushels' capacity. First-class 80-horse power engine, corn sheller, cleaners, three run of burrs for feed. Fully equipped for handling an extensive business. Located at Pittsburg, the best distributing point in the state. Allegheny County alone has a population of 600,000. Track connections with the entire Pennsylvania R. R. system. This is a bargain for a live man. Address

M. F. HIPPLE & CO., 316 Fourth Ave., Pittsburg, Pa.

IOWA ELEVATOR.

For sale, elevator in Northwestern Iowa. One of the best grain districts in the state. Capacity 10,000 bushels. Horse power. Good reason given for selling. Address

JOHN H. DOWNING, Hawarden, Iowa.

ILLINOIS ELEVATOR FOR SALE OR RENT.

Elevator in the best grain region of Illinois for rent or sale. The best built and most complete house in this part of the state, on the C. C. C. & St. L. R. R. (Big Four). Has ear corn and grain dump, office scales, hopper scales, one run of 3½-foot French burrs, sheller and cleaner, 30-horse power engine, etc. Must be seen to be appreciated. Handled 75,000 bushels of grain in December and January. Write for description to

LEVI RICHNER, Mansfield, Ill.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ELEVATOR WANTED.

Wanted, to rent or buy a grain elevator in Illinois or Eastern Iowa. Address

G. B. T., care Lock Box 14, Bishop Hill, Ill.

SUPERINTENDENT WANTED.

Wanted—A thoroughly practical elevator superintendent. Handling barley, corn and oats. Address, with full particulars as to experience and salary required,

ELEVATOR SUPERINTENDENT, Box 12, "American Elevator and Grain Trade, Chicago, Ill."

REPRESENTATIVES WANTED.

Millwrights, machinery dealers and manufacturers' agents wanted to represent us in their territory, on commission, for the sale of elevating, conveying and power transmitting machinery, mill and elevator supplies. Address

WELLER MFG. CO., 118 and 120 North Ave., Chicago, Ill.

Locations for Industries.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the Company's lines.

The Company has all its territory distributed in relation to resources, adaptability and advantages for manufacturing, and seeks to secure manufacturing plants and industries where the command of raw material, markets and surroundings will insure their permanent success.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tanbark, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

The Chicago, Milwaukee & St. Paul Railway Company owns 6,168 miles of railway, exclusive of second track, connecting track or sidings. The eight states traversed by the Company, Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota, possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle.

A number of new factories and industries have been induced to locate—largely through the instrumentality of this Company—at points along its lines. The central position of the states traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. The trend of manufacturing is westward. Confidential inquiries are treated as such. The information furnished a particular industry is reliable. Address

LUIS JACKSON,
Industrial Commissioner, C., M. & St. P. Ry.,
435 Old Colony Building, CHICAGO, ILL



GRAIN BAGS—BURLAPS.

All kinds of Bags,
New and Second Hand.
ORDERS FILLED PROMPTLY.

W. J. JOHNSTON,

Factory and Office,
182 Jackson Street, CHICAGO.

ROOFING AND SIDING.

The Garry Iron and Steel Roofing Co.,

168 MERWIN STREET, CLEVELAND, O.

MANUFACTURES



Steel Roofing,
Corrugated Iron,
Siding and Metal
Ceiling.

SEND
FOR CATALOGUE

DURABLE—EASILY APPLIED.

This roofing is manufactured from natural Trinidad asphalt materials, and will not dry up and become brittle under exposure to the weather as coal tar roofings do. Send for free sample of roof 12 years old, with circular and price list to

WARREN CHEMICAL & MFG. CO.,
56 Fulton St., New York, U. S. A.

Write us for Catalogue and
Low Prices on best
STEEL ROOFING, CORRU-
GATED IRON, ETC.

We are large manufacturers
of these goods and can save
you money.

SYKES STEEL ROOFING CO.,
611 So. Morgan St., Chicago, Ill.,
and Niles, Ohio



E. R. Ulrich & Sons,

SHIPERS OF

WESTERN GRAIN,

ESPECIALLY

High Grade White and Yellow Corn.

Elevators through Central Illinois on Wabash Ry., Chicago & Alton Ry., C. P. & St. L. Ry., and St. L., C. & St. P. Ry.

Main Office, 6th Floor, Illinois National Bank Building,

SPRINGFIELD, ILLINOIS.

Write for Prices Delivered.

COMMISSION CARDS.

[We will not knowingly publish the advertisement of a bucket-
shop keeper or irresponsible dealer.]

E. F. CATLIN & CO.,

COMMISSION,

Grain, Hay and Seeds,

309 CHAMBER OF COMMERCE,
ST. LOUIS.

Reference: St. Louis National Bank.

R. W. VAN TASSELL.

J. H. BUNN.

VAN TASSELL & BUNN,

Grain Commission,

PEORIA, ILLINOIS.

Refer to Central National Bank, Peoria, and Mercantile Agencies.

COMMISSION CARDS.

B. WARREN.

B. WARREN JR.

WARREN & CO.,

Grain Commission Merchants,

ROOMS 7 AND 9 CHAMBER OF COMMERCE,
Peoria, Ill.

F. H. PEAVEY & CO.,

GRAIN RECEIVERS.

Minneapolis,

Minn.

Consignments Solicited.

MILLING WHEAT A SPECIALTY.

E. A. GRUBBS.

CONRAD KIPP.

E. A. GRUBBS GRAIN CO.,

Commission Grain and Hay,

ROOM 9 CHAMBER OF COMMERCE,

Cincinnati, Ohio.

ASK FOR OUR PRICES.

SHIP YOUR GRAIN
TO—

P. B. & C. C. MILES,

COMMISSION MERCHANTS,
PEORIA, ILL.

Established 1875.

LIBERAL ADVANCES
QUICK RETURNS.

REFERENCES:—Commercial Nat. Bank, Peoria Savings, Loan & Trust Co., Peoria.

EDWARD P. MERRILL,

Millers' Agent.

Flour, Grain and Mill Feed.

OFFICE:

21-2 Union Wharf, PORTLAND, MAINE.

No consignments wanted.

I want a good Corn Account.

Letters Promptly Answered.

Rosenbaum Brothers,

COMMISSION MERCHANTS

Receivers and Shippers.

GRAIN AND SEEDS.

ROOM 77 BOARD OF TRADE BUILDING,

CHICAGO.

J. F. ZAHM.

F. W. JAEGER.

F. MAYER.

ESTABLISHED 1879.

J. F. ZAHM & CO.,

GRAIN AND SEEDS,

TOLEDO, OHIO.

SEND FOR OUR RED LETTER...

A. R. CLOUGH,

MILLER'S AGENT,

GRAIN AND MILL FEED,

Board of Trade Rooms, Manchester, N. H.

Letters promptly answered. All sales direct.

I want a good Toledo corn account.

Leavitt, Sanborn & Co.,

HAY COMMISSION

Our market needs the BEST HAY. There is no money to be made in poor goods. Correspondence solicited.

Reference: T. G. Hiler, Cashier the Faneuil Hall National Bank, Boston.

COMMISSION CARDS.

J. J. BLACKMAN

ASSOCIATED WITH
L. E. BUNKERCOMMISSION
MERCHANT.Flour, Grain, Hay, Feed, Beans, Peas, Lentils,
Seeds, Corn Goods, Etc.

274 Washington Street, - - - NEW YORK.

A. G. TYNG, JR.

D. D. HALL.

TYNG, HALL & CO.,

Grain and Commission Merchants

ROOMS 33 AND 35 CHAMBER OF COMMERCE,

Peoria, Illinois.

H. B. SHANKS.

Established 1873.

S. H. PHILLIPS.

Shanks, Phillips & Co.,

COMMISSION MERCHANTS,

HAY, CORN, OATS, BRAN, CHOPS, FLOUR AND CORN MEAL.

306 Front St., Memphis, Tenn.

Refer to Union and Planters' Bank. Cash advances on B. of L

ESTABLISHED 1867.

Reference: DUQUESNE NAT. BANK.

Daniel McCaffrey's Sons,
HAY, GRAIN AND FEED.

CONSIGNMENTS SOLICITED.

PITTSBURG, PA.

M. F. BARINGER

...SUCCESSOR TO....

J. R. TOMLINSON & CO.

...GRAIN AND MILL FEED...

416-418 Bourse Bldg., Philadelphia, Pa.

Correspondence with millers and grain dealers solicited. Sight draft with bills of lading attached honored on all shipments.

E. L. ROGERS & CO.,

ESTABLISHED
1863.COMMISSION
MERCHANTS,

RECEIVERS AND EXPORTERS

GRAIN, Flour, Seed, Hay and Straw,

358 Bourse Building, PHILADELPHIA, PA.

Liberal advances made on consignments. Market reports furnished gratuitously on application. Correspondence solicited.

References: Corn Exchange National Bank.
Manufacturers National Bank.
Merchants National Bank.

COLLINS & Co.,

STRICTLY COMMISSION

Grain, Hay and Mill Feed.

CINCINNATI, OHIO.

L. F. Miller & Sons,

RECEIVERS AND SHIPPERS OF

GRAIN, FEED, SEEDS, HAY, ETC.

OFFICE 2933 N. BROAD ST., PHILADELPHIA, PA.

CONSIGNMENTS SOLICITED.

ELEVATOR AND WAREHOUSE, GERMANTOWN JCT., P. R. R.

References: Manufacturers National Bank, Philadelphia, Pa.
Union National Bank, Westminster, Md.

COMMISSION CARDS.

ESTABLISHED 1865.

L. EVERINGHAM & CO.,
Commission Merchants.
 ORDERS AND CONSIGNMENTS SOLICITED.
GRAIN AND SEEDS OF ALL KINDS
 For Cash and Future Delivery.
 Suite 80 Board of Trade, - - CHICAGO, ILL.

Martin D. Stevers & Co.
Commission Merchants,
 212 RIALTO BUILDING, - CHICAGO.
 Established 1864.
 We make a specialty of selling by sample
 Barley, Wheat, Rye, Oats, Corn, Flax and Timothy Seed.
 Grain, Seeds and Provisions for future delivery
 bought and sold on margins.

COMMISSION CARDS.

H. G. MORGAN & CO.,

RECEIVERS AND SHIPPERS

OATS, CORN, HAY AND MILL FEED,
 PITTSBURG, PA.

Will Bid You on Clipped or Natural Oats on Receipt
 of Sample.

HAVE A LARGE TRADE IN YELLOW EAR CORN.

LEMAN BARTLETT.

O. Z. BARTLETT.

L. Bartlett & Son,GRAIN AND PRODUCE
 COMMISSION MERCHANTS.

BARLEY A SPECIALTY.

Room 23 Chamber of Commerce Bldg
 Milwaukee, Wis.

Careful attention given to orders from Brewers, Maltsters and Millers

COMMISSION CARDS.

GEO. N. REINHARDT & CO.

MELROSE STATION, NEW YORK CITY.

Geo. N. Reinhardt & Co.
 DEALERS IN
 HAY, STRAW & GRAIN.



We sell on Commission and buy direct,

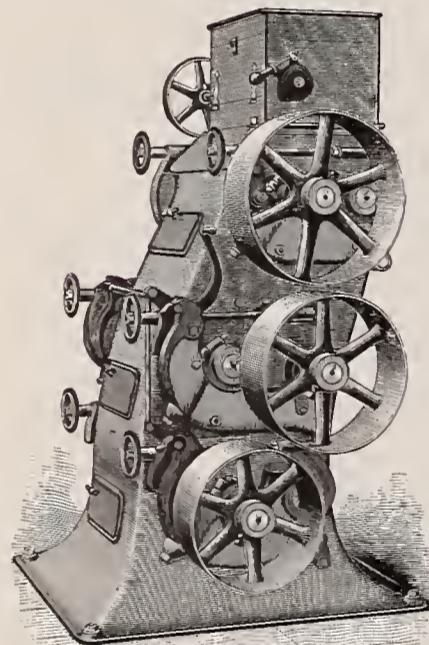
HAY, GRAIN AND FEED.

Storage capacity 8,000 bales, 30,000 bushels
 Let us know what you have to offer.

NORDYKE & MARMON CO., Indianapolis, Ind., FLOUR, CORN AND ELEVATOR MACHINERY.

QUALITY TO SUIT THE MOST EXACTING.

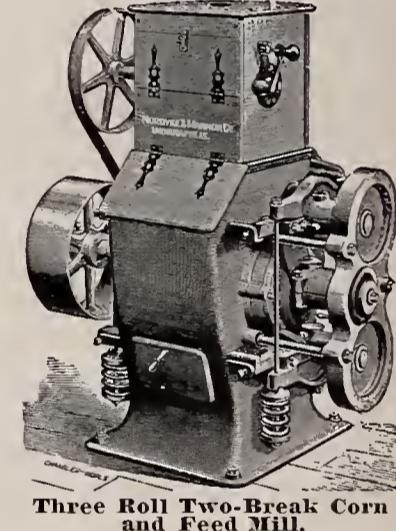
PRICES TO SUIT THE TIMES.



Three Pair High Six Roller Mill.

Corn Shellers,
 Grain Cleaners,
 Flour and Bran Packers,
 Flour Feeders and Mixers,
 Portable Buhr Mills,
 Hominy Mills,
 Wheat Heaters,
 Scales,
 Shafting,
 Pulleys,
 Elevator Supplies.

Hangers,
 Boxes,
 Gearing
 Belting,
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FOR 1897-98.

Containing Official Lists of Flouring Mills, Elevators, Grain Dealers, Shippers and Commission Merchants Located on all the Principal Railroads in the United States and Canada.

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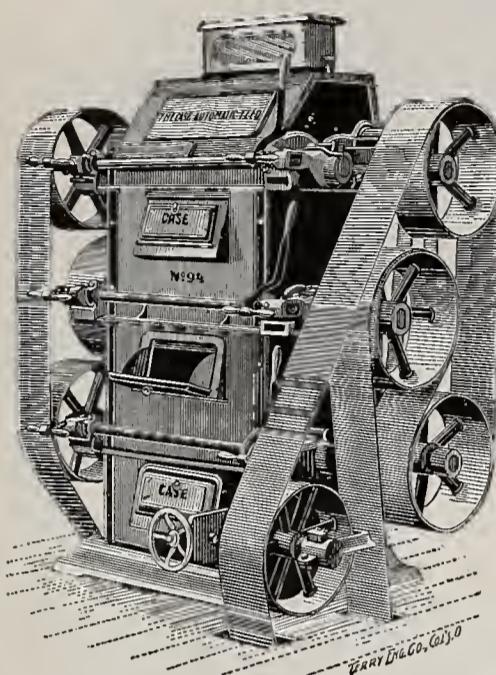
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Who put in a ROLLER FEED MILL last season, found it a profitable investment. Some Roller Feed Mills put in by elevator men have more than paid for themselves in one season. The demand for ground feed during the coming season promises to be even greater than during the last.

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Are made in four sizes, and always do perfect work.



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She is a daisy. We have smiles all over our faces like a full moon. Now, if you want a statement regarding the roll, let me know, and will write you a good one. Everything all O. K.

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ELEVATOR AND MILL SUPPLIES
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Grain Cleaners, Corn Shellers, Corn Cleaners and Scourers.

CORN MEAL BOLTS.

WRITE US FOR PRICES BEFORE BUYING.

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Every Regular Grain Dealer

Should join the **Grain Dealers' National Association** and thereby help to support an organization which is seeking to promote the common interests of regular grain dealers, and to protect them in their business.

It seeks to secure the payment of a loading fee of two cents per 100 by railroad companies, to members, who receive grain for loading into cars and give three days storage free to all who wish to ship over carriers' lines.

It seeks to relieve its members from competition with irregular shippers and to discourage the sending of market quotations to any but regular grain dealers. It also strives to encourage the shipping of grain only to receivers who do not solicit or encourage shipments by others than regular grain dealers.

It seeks to guard and champion the interests of regular grain dealers in all matters of national scope, and especially in legislation by Congress or legislation which will affect the interests of the regular dealers of more than one state.

It is in favor of clean bills of lading and seeks to secure correct weights and to reduce shortages.

It is striving to relieve the regular dealer from the exactions and impositions heaped upon him by the rail carriers, insurance men and others.

It seeks to secure the adoption of clear and equitable rules governing the grading of grain in all markets and the equitable enforcement thereof.

No regular grain dealer, who has the interests of his business at heart or wishes relief from the many abuses which encumber it, can hesitate to join the **Grain Dealers' National Association** and help along the work.

The membership consists of two classes of members: detached and associated. The detached members are members of this Association regardless of their membership in any other organization. The associated members have membership in this association by reason of their membership in a state, district or local association which has been admitted to membership in this association. The constitution provides that,

"Any person, firm or corporation operating a grain elevator, and engaging in the buying and selling of grain continuously, may become a detached member of this association; also. Any person, firm or corporation who has engaged in the buying and selling of grain continuously at one station for a period of two years, yet has no elevator, may, upon the recommendation of two persons, firms or corporations, who are members of this Association in good standing, and are operating grain elevators in the same or nearby stations, be admitted to detached membership.

"Regular grain receivers and track buyers who do not sell grain for or buy grain from grain scalpers, irregular grain dealers, or transient grain buyers, 'scoop shovel men,' may be admitted to detached membership on the payment of the regular fees, and shall be rated the same as the owner of one elevator."

The officers are W. T. McCray, Kentland, Ind., president; E. A. Grubbs, Greenville, Ohio, first vice-president; J. M. Sewell, Hastings, Neb., second vice-president, and Charles S. Clark, Chicago, secretary. The directors are A. E. Clutter, Lima, O., H. N. Knight, Monticello, Ill., T. P. Baxter, Taylorville, Ill., M. McFarlin, Des Moines, Iowa, and H. B. Hieatt, Willis, Kans.

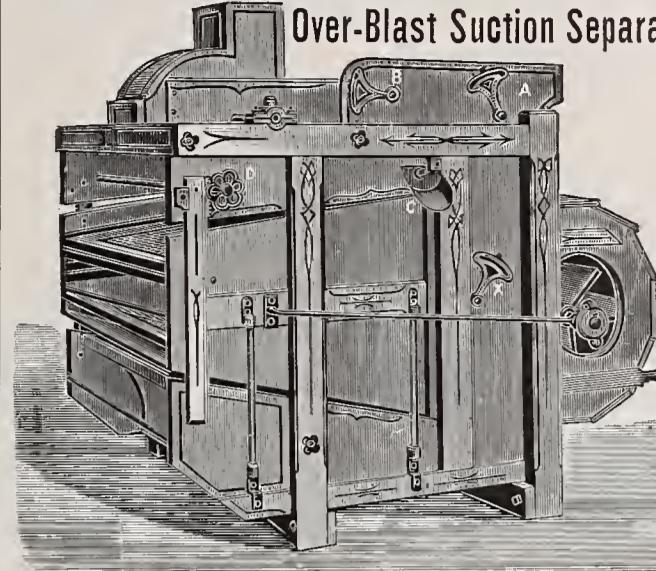
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This system has nothing in common with other methods, but is entirely different and distinct, in construction, arrangement and operation, materials used, principles involved, and results obtained, from all others heretofore in use.

It is fully protected by 20 patents already issued, and others pending, in the United States and principal foreign countries.

It was on exhibition at the World's Columbian Exposition of 1893, and was awarded four highest medals and diplomas and received in addition thereto the highest endorsement of the principal officers of the Exposition as well as of the highest authorities in all industries to which it is applicable.

The title to all patents and other rights belonging to this system is vested in The Smith Pneumatic Transfer & Storage Co., and any infringement thereon will receive prompt attention.

The policy of the Company in regard to the introduction of its system is to make such liberal and easy terms with all who desire to use it that there will be no cause for complaint.

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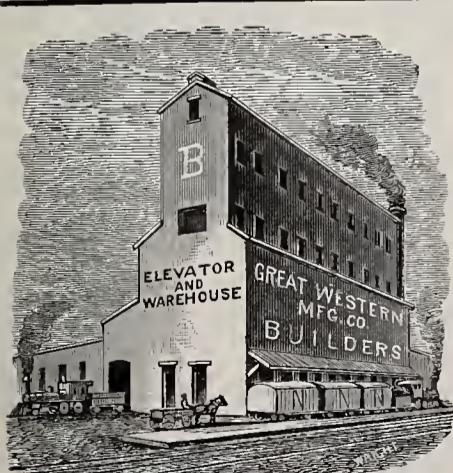
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KIRKMAN BROS. GRAIN CO.

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W. L. WOODNUT & CO.

DECATUR, ILL., April 29, 1897.

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DEAR SIR:—Your favor of the 23d received inclosing supplement to the Actuary, for which accept our thanks. In regard to the "Actuary" will say we are very much pleased with it and think every grain dealer should have one in his office, as it saves time and time is money. Yours truly,

DECATUR MILLING CO.

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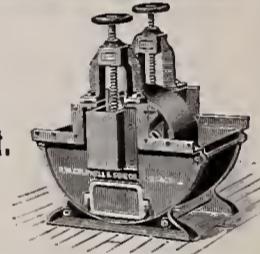
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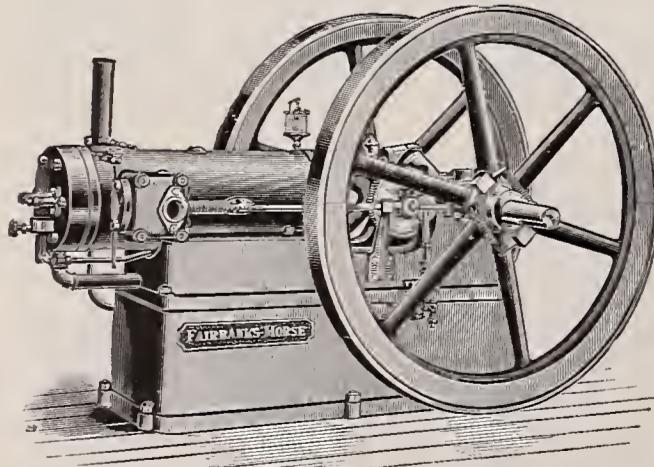


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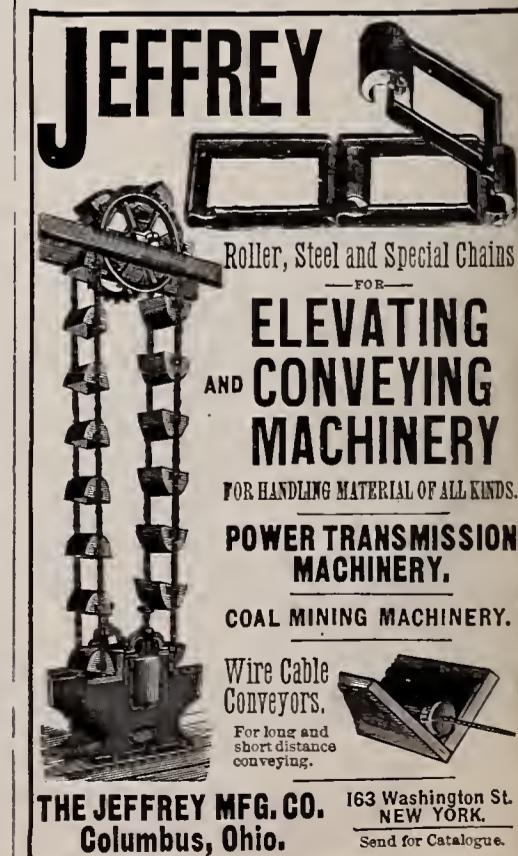
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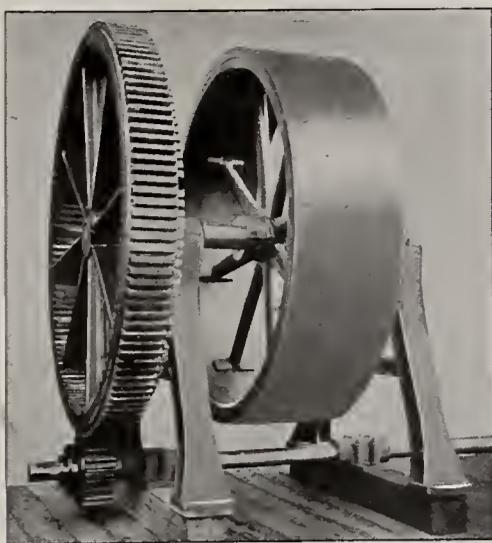
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Very truly,

E. M. ASHLEY, Superintendent.

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MACHINERY AND APPLIANCES.

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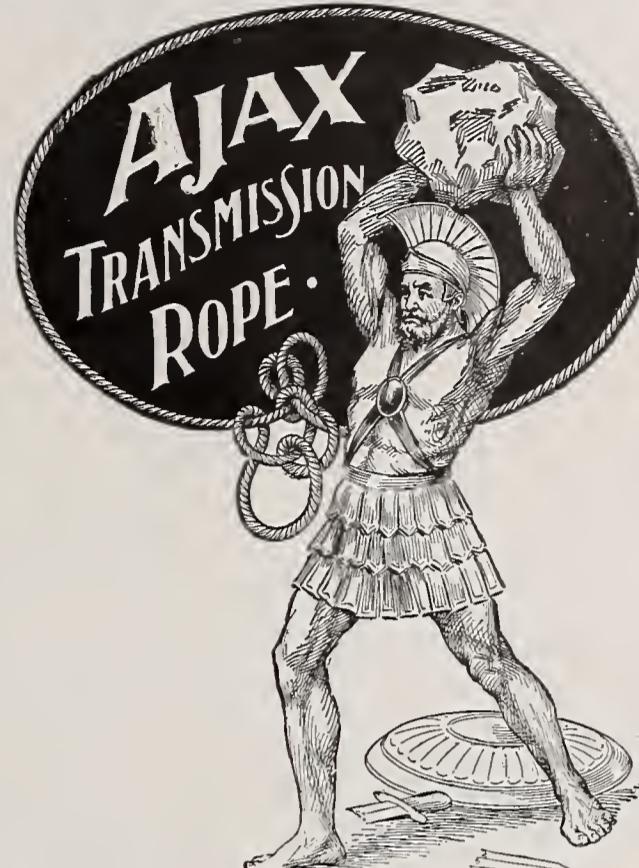
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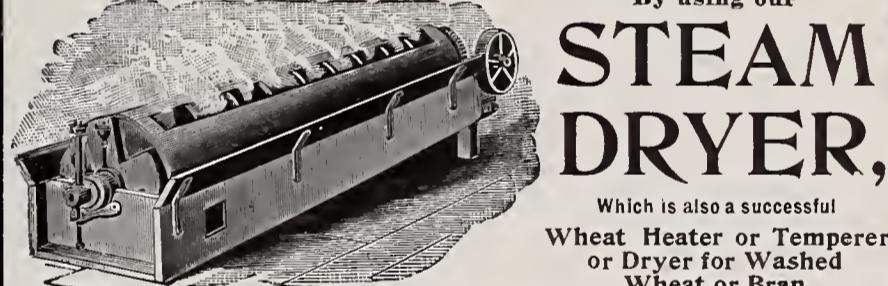
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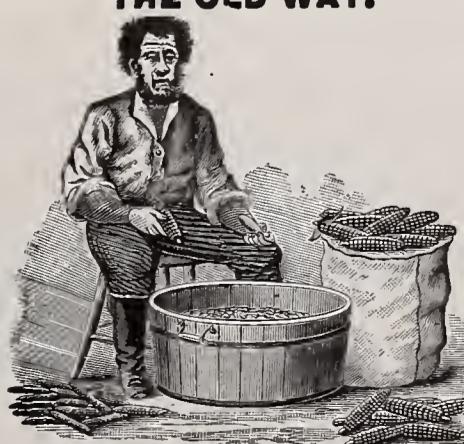
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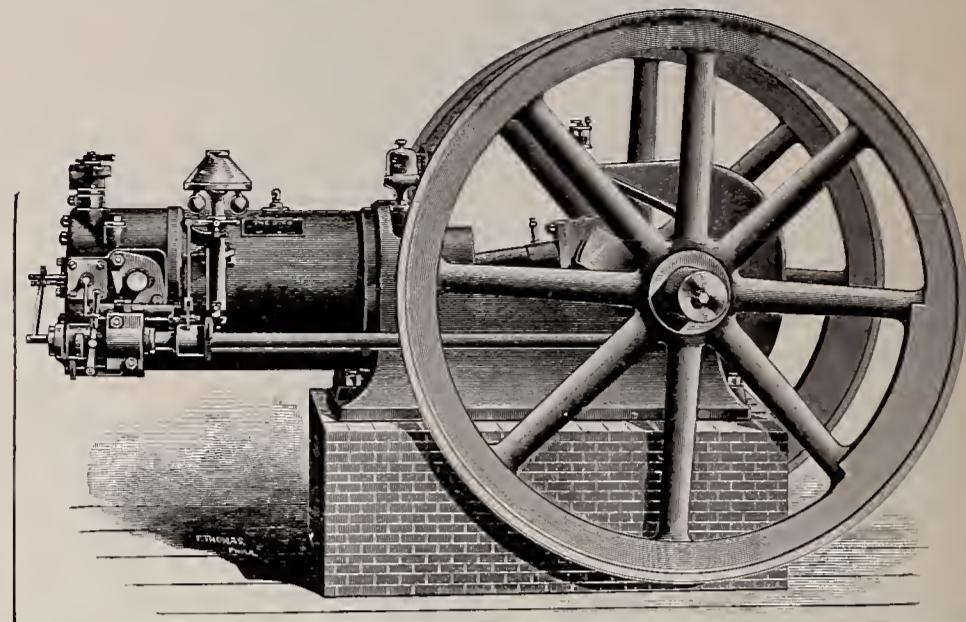
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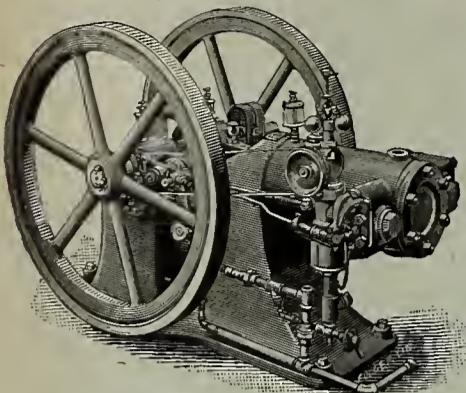
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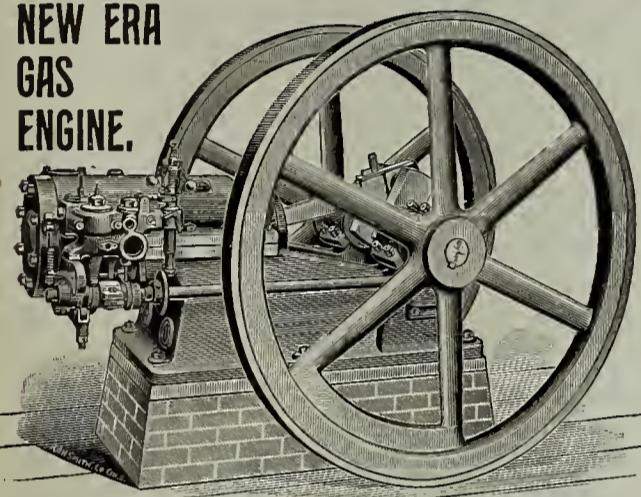
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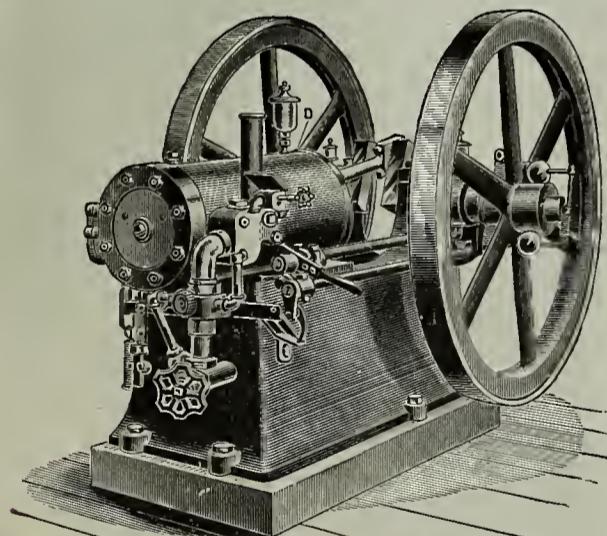
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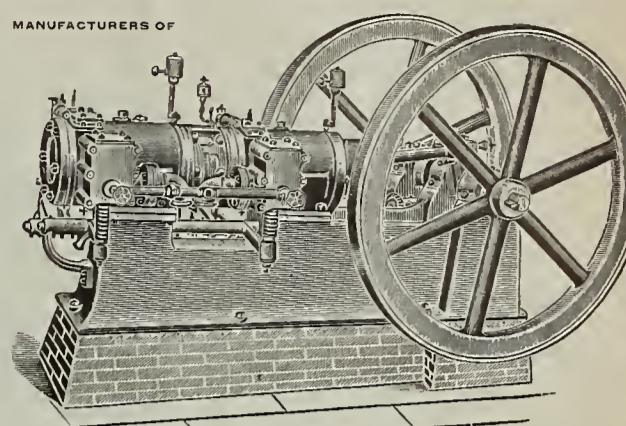
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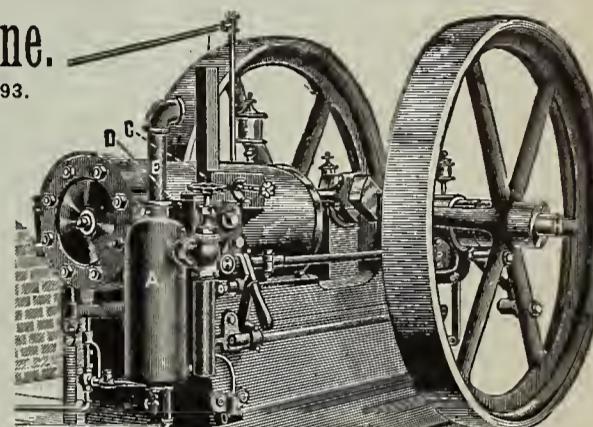
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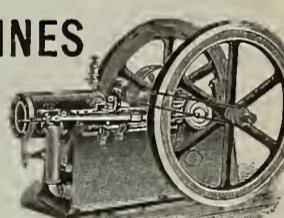
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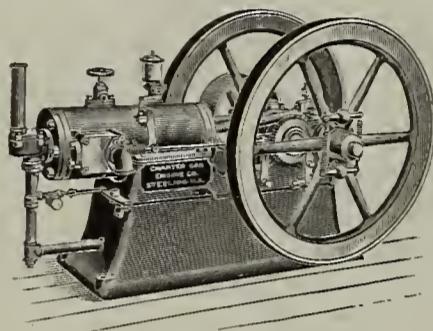


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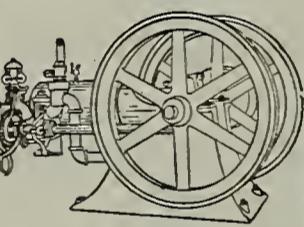
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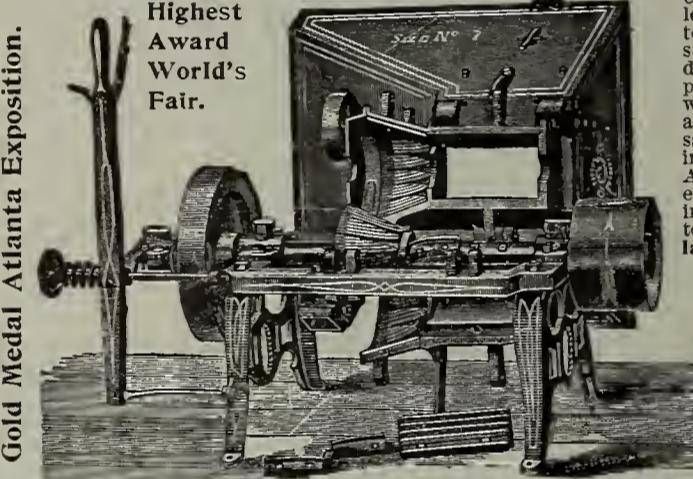
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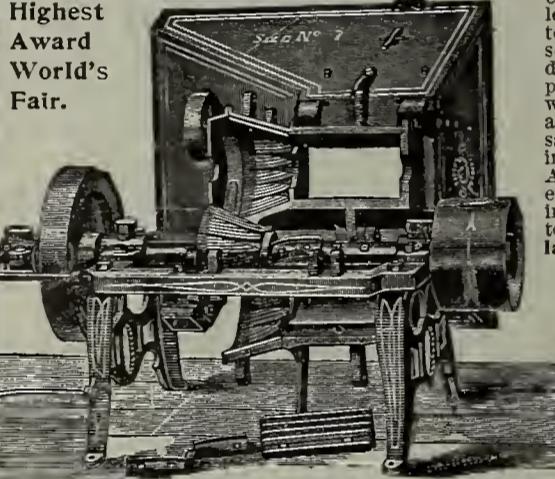
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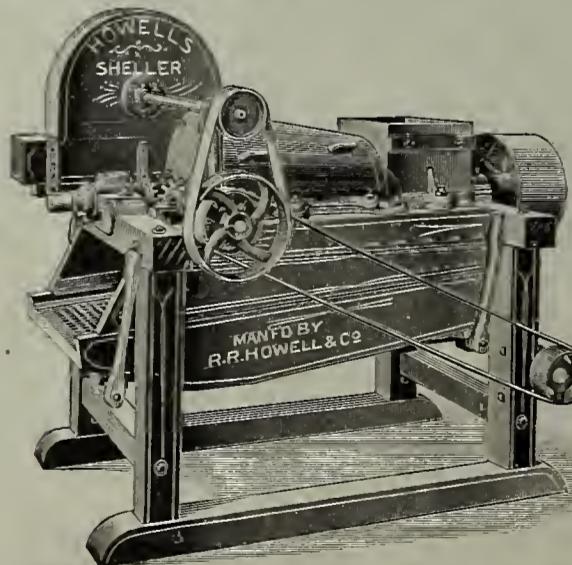
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